

A New Business Model of Electronic Commerce with Innovative Strategies

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Abstract

There are a lot of problems that make the business of electronic stores very difficult, especially for those firms that lack the required expertise and resources for running an electronic business. This study proposes a new business model of electronic commerce (EC), which aims to tackle those problems and help enterprises run electronic stores well. This model applies the franchise system of chain store, a very successful modern business model, to the management of electronic stores to take advantage of the chain's competitive power by integrating individual affiliate sites as a whole. There are eight components in the model. Implementation strategies of the model, which are quite different from those generic strategies commonly used in implementing business models, are also proposed. The feasibility of the model and its implementation strategies were validated using the Nominal Group Technique (NGT), the case study, and the questionnaire survey approaches. Finally, practical implications for applying the model are discussed, and directions for further study are also suggested.

Keyword: electronic commerce (EC), business model, strategy, electronic store, franchise.

1. Introduction

There have been many current organizations and new investors running electronic commerce in recent years. Various business models have been invented. However,

very rarely have successful cases been reported to date. "Direct-to-consumer" is one of the most popular EC models[20]. Dell computer is a very successful example of this model that has a positive return on its investment. Amazon.com, the largest Internet bookstore in the world, is another good example of the model. Its business model is very successful and has increased its sales very quickly. But it has not broken even yet even though its sales volume is expected to grow in the next few years. Electronic stores are very important applications of the model because they really benefit consumers and also give enterprises an additional channel to expand their business. Unfortunately, a great many electronic stores fail to survive.

There are many reasons for the failure of an electronic business. Huang and Dai[8] argued that enterprises couldn't generate a return quickly on their EC investments. As a result, a number of electronic businesses close because they cannot continue to sustain big losses over a long period. For many electronic stores, they cannot survive simply because they don't know how to manage the new business. However, most of the failures of electronic businesses are due to a lack of strategies that can fit their business models and thus can sustain a competitive advantage. The business model under the EC environment is quite different from traditional ones because of the unique characteristics of electronic businesses. It is therefore essential for

electronic businesses to have innovative strategies, which can be properly integrated with their EC models and help the models be successfully implemented, such that these businesses can gain a good stance in the drastically changing and severely competitive new market.

Business models and innovative strategies are very important EC issues. A good business model is the key to success for an electronic business. However, a good business model without proper strategies cannot assure its successful implementation. Although much research has been conducted on EC models and strategies, an important issue, the integration of innovative strategies with the EC model for its successful implementation, has been neglected. This study attempts to investigate the issue by reviewing current EC models and strategies and proposing a new EC model with innovative implementation strategies. The new model applies the franchise system, which has been successfully implemented in physical stores for several decades, to the management of electronic stores and is aimed at helping current electronic stores or those who are interested in running electronic stores to have greater competitive advantage in the industry.

2. Literature review

Many things need to be taken into consideration when running an electronic business. Kalakota and Whinston [10] proposed several of them: product/content, software interface, work flow, price, payment, and market penetration. Those are all essential issues that should be included in the business model of EC. EC models have to deal with the interactions between enterprises and consumers. Treese and Stewart[19] presented a framework of the businesses' value chain of EC regarding their interactions with customers. The framework includes four phases: attracting customers, interacting with customers, processing customers' orders, and responding to customers' questions. The idea of the value chain is like that of traditional management, but its execution needs an innovative method to adapt to the computer network, which is a new media for the business transaction.

EC will give rise to new kinds of business models, which can be categorized in different ways [16]. For instance, according to Weill and Vitale [20], there are models for direct to customer, full-service provider, whole of enterprise, portals, agents, auctions, aggregators, shared infrastructure, virtual community, value net integrator, and content provider situations. Yu[22] summarized current EC models and classified them into six categories in terms of transaction subjects, web services, electronic markets, economic benefits, selling contents, and specific applications. Deitel et al.[6] reviewed some practically important business models of EC. They are the storefront model, the auction model, the portal model, the dynamic-pricing model, the B2B model, and the click-and-mortar business.

The integration of EC models with implementation strategies is important to EC success. Some studies found that the high connectedness of information strategy and

business strategy is helpful to achieve better business performance [18][14]. Since the business model of an EC firm is inseparable from the firm's business strategy, and implementation strategies of the EC model are partly dependent on the firm's information strategy, it is therefore crucial to integrate the model with its implementation strategies when implementing the EC model. A good match of the EC model with the implementation strategy will align them toward the enterprise's business strategy and information strategy. As a result, this may lead to better performance.

Several factors are critical to the success of the electronic store. Cheng[4], and Lin and Chuang[15], proposed some of these factors: rich information content, plenty of products and services with the related information, good corporate image, sufficient bandwidth, secure transaction environment, reliable host computer with enough capacity, and comprehensive back-end management system. All these factors are important in running an electronic store. However, these are not enough. Actually, consumers usually demand more; they demand electronic stores to be complete and operative which provides high-quality services. Most of current electronic stores don't run well because they cannot meet the demand of customers. Accordingly, the establishment of an electronic store should be targeted to meet consumers' demand.

There are three approaches to constructing an electronic store: renting a virtual host machine from the Internet service providers, joining in an electronic mall, and developing a web site by internal staff [7]. No matter what approach is adopted, to run an electronic store effectively needs five main functions: the communication function, the product marketing function, the linkage function, the function of online ordering and payment fulfilling, and the customer relations function[17]. These functions together with the above-mentioned important factors will be integrated into the new model of franchise electronic store of this study.

The study will apply the franchise system, which has been successfully implemented in physical stores for several decades, to the management of electronic stores. A franchise is a special type of chain store or chain business in which the franchise offers affiliates the license and the brand to run a store or a business under the authorization of the franchise [9][13][5]. The franchise will give affiliates directions and support in activities of organization, training, purchasing, and management. Affiliates have to pay royalties to the franchise and run their chain businesses by following the management system of the franchise. In addition, Lee[12] argued that all affiliates in a chain should be consistent in business ideas, business identifications, products and services, and management system so that the chain can be successful.

The franchise system gives the advantages of large scale and reduces business risks for small enterprises [2]. Accordingly, they would like to join the franchise system as affiliates, even though they would lose some autonomy, in order to obtain assistance and support, and benefits of professional management and brand value. The

performance of the franchise certainly will affect the realization of the potential advantages of a franchise system. Good relationships between the franchise and its affiliates will have a positive effect on the marketing performance of the franchise[3]. The relationship is usually dependent on the content and the execution of franchising contract. In the contract, the primary issue is the economic interaction between the franchise and its affiliates. According to Woll [21], the initial sources of income for the franchise are franchise fee, royalty, rent, equipment lease, material supply, and product selling, and these items concerning money are also the key parts of the contract. Bacus et al[1] argued that factors of determining the royalty and other base fees that will be designated in the contract are characteristics of the industry and the franchise, which include the duration, the brand value, the market share, the number of employee, and the provision of services of the franchise. Lafontaine and Kaufmann[11] found that some franchises do not

charge their affiliates for initial fees of royalties and other fixed charges but collect royalties and other fees from them according to their sales volume. The above-mentioned issues of marketing and operations under the circumstance of the franchise electronic store will be further analyzed and their feasible strategies will be included in the new model of this study.

3. Methodology

The study developed a conceptual framework for a new EC model after reviewing the literature related to business models and innovative strategies for EC. To validate the appropriateness and the comprehensiveness of the new concept, three methods were used consecutively for enhancing it: the Nominal Group Technique (NGT), the case study, and the questionnaire survey. The research process is illustrated as Figure 1.

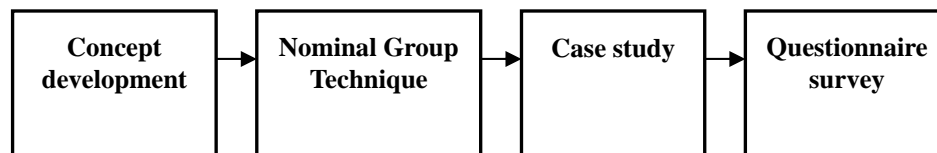


Figure 1 The research process of the study

In the stage of concept development, the study examined the related factors that need to be taken into consideration in building up a franchise system for electronic stores by analyzing the business models of the electronic store and the franchise, and then proposes a franchise model for electronic stores. After the stage of concept development, the NGT method was used to validate the proposed conceptual model. There were four persons in the study's NGT discussion group. Three were EC practitioners who are knowledgeable about the franchise system. The other one was a professor with EC as his main research and teaching interests. This group evaluated the feasibility of the conceptual model and selected the best alternative strategies for implementing the model by following the NGT's designated procedure.

After the validation by NGT, the case study method was used to enhance the model from the practical point of view. According to features of the franchise in the new model, chain stores, IT firms, and electronic malls are the most likely industries to establish the franchise system of electronic stores, so four famous electronic stores with such industry background were chosen as the study's subjects. Business models of these cases were studied and their managers were interviewed to validate the practical feasibility of the study's proposed model. Little adjustment was made to the model and its implementation strategies according to the results of case study. The model was then completed.

In the last stage, the study conducted a questionnaire survey in Taiwan for analyzing the feasibility of the new

model. Since, besides consumers, there are two main subjects related to the model: the franchise and affiliates, subjects of the questionnaire survey were potential franchisees and affiliates of the franchise electronic store. As mentioned before, potential franchises include chain stores, IT firms, and electronic malls. All enterprises in the name lists of these three industries were the population of the survey. In order to receive at least fifteen responses for the analysis at an anticipated response rate of about ten percent, one hundred and fifty questionnaires were mailed. These companies were selected by using purposive sampling method. On the other hand, the survey of affiliates was targeted at current electronic stores and those small manufacturing companies that possibly run electronic stores. Similarly, one hundred and fifty of these two types of companies were chosen by purposive sampling method as survey subjects. The questionnaires were sent to the managers of EC department, or information department if there was no EC department, of those subject companies. The questionnaire inquired about a respondent's perception of the feasibility of the franchise model of the electronic store and the appropriateness of alternative implementation strategies of this model. A five-point Likert scale was used to measure the respondent's perception except for some open questions about the respondent's basic information and comments, such as: his or her professional background and correspondence, and suggestions for the model and its implementation strategies.

4. A new EC model with innovative strategies

4.1 The new model

This study proposes a new model for electronic stores. The new model applies the franchise system to operations of electronic stores and can integrate all stores as a whole to take advantage of the effect of synergy. This new model includes a franchise website, affiliated websites, and the franchise system that support all the operations and management of the franchise electronic store. The framework can be illustrated as Figure 2. There are two main subjects, besides consumers, related to the model: the franchise and affiliates. The franchise must establish its website as a portal site for customers to enter the franchise electronic store. In addition to that, it has to help its affiliates to build up their own websites that can be linked to and integrated with the franchise website. Moreover, and which is also the most important, the franchise must have a franchise system specifying how operational and management activities of the franchise electronic store should be proceeded and assuring that affiliate stores can operate consistently and effectively. On the other hand, affiliates will join the franchise if they can gain sufficient support in those aspects they need. However, they need to run their electronic stores by following the regulations of the franchising contract so that the franchise electronic store can give a good and consistent image to customers.

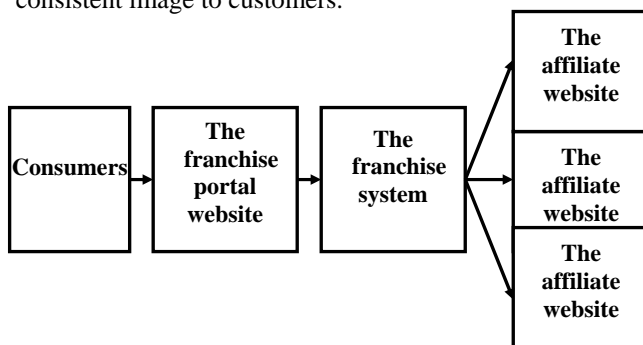


Figure 2 The framework of the new model

In the new model, a franchise system of electronic stores shall be established with respect to technology, operations, and marketing. From the dimension of technology, the model provides three components for the franchise system: the integrated portal website with the personalized technology, the technical support for affiliated websites, and the operations system of the franchise electronic store. First, the integrated portal website is very important in the new model. It is a customer portal built by the franchise, which is dynamically linked with affiliates' websites. By applying the personalized web technology and business identification system in its design, the portal site can meet the individual demand of customers and maintain a consistent image of the entire franchise electronic store. Next, the technical support for affiliated websites is also essential in the system because potential affiliates of the franchise are targeted to those firms that lack the professional staff of web technology. This component can

provide affiliates with necessary technical support and service for establishing their websites and maintaining operations of websites. Last, the operations system of the franchise electronic store is core component of the franchise system. It integrates all activities of transaction flow, material flow, payment flow, and information flow among the franchise, affiliates, and customers and offer efficient franchise operations.

From the dimension of operations, the model offers three components to the franchise system: the integrated management information system, the communication and control system, and the education and training system. First, the integrated management information system is developed to meet individual demand of the franchise and affiliates. It can help affiliates save the cost of developing and maintaining their own management information systems and take advantage of the integrated effect of information sharing. Next, the communication and control system can assist the routine operations between the franchise and its affiliates to be processed efficiently. As a result, it can also promote the utilization of resources of the franchise system. Third, the education and training system provides the necessary training to the employees of the franchise and affiliates. It can help the franchise system keep good quality of personnel. In addition to that, it can also assure that the requirement of consistent quality of operations in the franchise system is met.

From the dimension of marketing, the model provides two components for the franchise system: the integrated marketing and advertisement and the CRM system. The component of integrated marketing and advertisement plans and executes activities of marketing and advertising for the franchise system. It also support the marketing promotion of individual affiliate website. On the other hand, the CRM system is used to effectively understand and satisfy the demand of customers. It can help the franchise electronic store keep good relationships with customers and create new opportunities of selling.

4.2 Implementation strategies

Since the new model is an innovative idea to establish the franchise system for electronic stores, generic strategies for implementing EC models are not enough for the implementation of the new model. Innovative strategies should be adopted for the model to be successfully implemented. This study proposes implementation strategies of the model according to the unique characteristics of the franchise system. Since the appropriateness of subjects of the franchise electronic stores will have a significant effect on the success of the new model, first of all, the strategy of the selection of subjects shall be carefully developed. Current franchise physical stores, electronic malls, and the IT solution providers are appropriate subjects of the franchise of the new model. And a good strategy to establish a franchise for electronic stores is by an alliance of these three types of enterprises. As for the selection of affiliates, the strategy shall target at current electronic stores and small firms that are interested in the business of electronic store.

In addition to the strategy of selecting subjects, several strategies are important for the implementation of the new model. These strategies are illustrated below in terms of operations, technology, and marketing. From the dimension of operations, there are strategies of the mode of cooperation, the source of income, the physical distribution, and the payment. From the dimension of technology, there are two strategies: the development of website, and the technical support. From the dimension of marketing, three strategies should be taken into consideration. They are strategies of the participation of marketing, the marketing mix, and the brand.

4.3 The feasibility analysis and practical implications

The practical feasibility of the new model was validated by the NGT group discussion, the case study, and the questionnaire survey. The results are analyzed here. First, in the NGT group discussion, the group agreed that the new model is practically feasible. Overall, they agreed that those proposed implementation strategies are important and appropriate. Particularly, they thought that current franchises of physical stores are more likely to be initiators of the franchise system of electronic stores than current electronic malls and IT solution providers, although they are appropriate initiators, too. In addition to that, the group also argued that a strong bond of the franchise with its affiliates may be a critical factor to the success of the franchise system, and the physical distribution is very important in the operations of the franchise system. Both factors should be valued while implementing the new model.

Second, four cases of electronic stores, which have the industry background of chain stores, IT firms, electronic malls, and bookstores respectively, were studied. We found that all of them have some problems with respect to the management, the technology, and the marketing. These problems with their solutions were taken into consideration in our proposed strategies. For instance, one of them had some technical problems because they lacked sufficient technical staff and another faced channel conflicts with its physical retailers. The former problem can be solved by the strategy of technical support, and the place strategy will deal with the latter problem. Managers of these stores were interviewed about the feasibility of the new model and implementation strategies, too. All of them felt that the model was feasible and the strategies were appropriate. Specifically, they thought that the most appropriate franchise of the new model was an alliance of three potential subjects of the franchise we proposed. This is a very good point because such an alliance will have all necessary capabilities to implement the model.

The results of questionnaire survey also validated the practical feasibility of the new model and its implementation strategies. We had thirty-two respondent companies (10.66%) from this survey. General speaking, almost all respondents confirmed the feasibility of the model and implementation strategies. Especially, respondents of potential affiliates have a higher average score of agreement on the feasibility than respondents of

potential franchises. This may be related to the fact that those potential affiliates need such model to help them enter the market of electronic stores or help them solve the difficulties they are encountering in their business now.

To implement the new model, the proposed strategies should be appropriately executed. These strategies are aimed to completely solve common problems of electronic stores in an integrated way within a franchise system of the new model, which is different from current EC models, such as electronic malls, electronic marketplace, and affiliate programs, that can solve only a specific part of those problems. The successful implementation of the new model is dependent on the effectiveness of eight components of the model and the appropriateness of implementation strategies, and the integration of the model and implementation strategies. Specifically, several issues are critical for the implementation of the model. First, sufficient capabilities of the franchise are very important to implement the new model successfully. Secondly, attracting appropriate affiliates to join the franchise system is crucial to the operation of the system since whether the franchise system reach the economic scale will have great impact on its profitability. Finally, the franchise system must specify how operational and management activities of the franchise electronic store should be proceeded and thus can assure that all affiliate stores operate effectively and provide consistent quality products and services to customers.

5. Conclusions

It is not easy to operate an electronic store for an individual firm, especially the small enterprise that lack of the required expertise and resources for running the electronic business. This study proposes a new EC model to help enterprises run electronic stores. The new model applies the franchise system of chain store, a very successful modern business model, to the management of electronic stores to take advantage of the chain's competitive power by integrating individual affiliate sites. This model provides eight components for the franchise: the integrated portal website with the personalized technology, the technical support for affiliated websites, the operations system of the franchise electronic store, the integrated marketing and advertisement, the integrated management information system, the communication and control system, the education and training system, and the CRM system. Implementation strategies of the model, which are quite different from those generic strategies commonly used in implementing EC models, are also proposed. These innovative strategies are developed with respect to dimensions of operations, technology, and marketing, so that they can help the model be successfully implemented.

The proposed model is practically feasible and can be adopted to establish the franchise system of electronic stores. In addition, the results of this study can also be used as the basis for the future study on EC business models. There are some directions for further research.

Specifically, develop prototype systems for those eight components of the new model and examine the effectiveness of implementation strategies of the new model through experimental studies will be very important for the technical transfer of the model. This study is going to advance to the development of prototype systems, which can then be used to examine the effectiveness of those implementation strategies.

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