The Relationship of Taiwan manufacturing Industry's competition, Law and Government Policy Based on e-Commerce

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Abstract. Along with the Taiwan B2B electronic commerce activities are vigorous development and also under the fever of globalization trades, Taiwanese manufacturers are facing the pressure of serious globalization trade competitions; therefore each kind of trade patterns is also getting more and more various. However, government policy, laws, regulations and related laws of B2B electronic commerce whether have been able to assist Taiwanese manufacturers to fast enter B2B electronic commerce domain, and obtain better business environment, these topics are worth discussing thoroughly (Lederer, A. L., Dinesh A. Mirchandani and Kenneth Sims, 1996).

Keywords: B2B electronic commerce, government policy, electronic commerce law

1. Introduction

Section 1: The background and the purpose of research project

The Internet and the business to business (B2B) electronic commerce in Taiwan have already been vigorous development, when the manufacturing business owner invests gradually on taking the Internet as foundation of B2B electronic commerce, they don't know whether already having a perfect planning? Moreover, the local government whether also to provide the closed and practical demand assistance to enterprise will be discussed on the manufacturing business owner's angle (Clayton, T., Chiara Criscuolo, Peter Goodridge and Kathryn Waldron (2004).

Section 2: Research purpose and significance

This research achieved the following main purpose:

One: The relationship between the manufacturing industry competitions and the government assists to develop the electronic commerce.

Two: The relationship between manufacturing industry competitions and the law.

2. Research design

This research design mainly explained the process to verify the research.

Section 1: Research construction

The main purpose in this research was to describe the data flow and the method. This research construction flow chart as shown in Figure 2-1:

Section 2: Research hypotheses

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H_{01}: This industry's intense competition and government policy are tending to develop forward.

H_{02}: The industry's intense competition and completeness of the law are tending to develop forward.

Section 3: Definition of research variables

One: Basic enterprise's information

The questionnaire's items are mainly used for recording the manufacturer's basic information. Including: 1. Company name, 2. Industry category, 3. Main business locations (national/area) in Taiwan county and city primarily, 4. Company size (staff population): Scores are respectively into 1~10, 11~100, 101~250, 251~500, 501 and above.
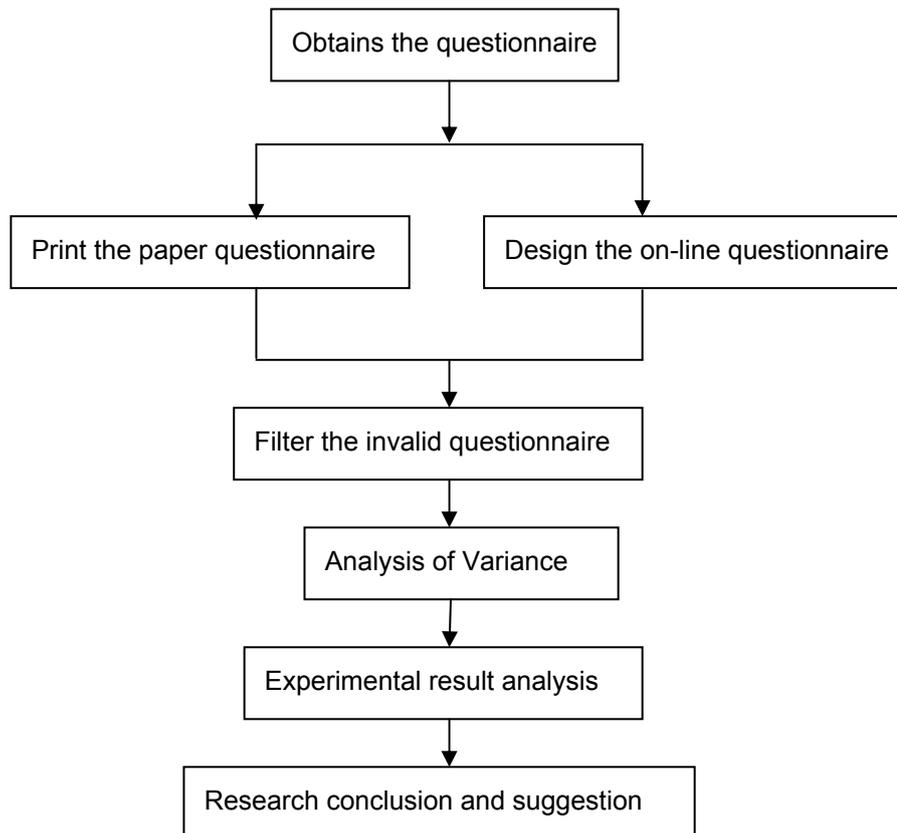
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┌─────────────────────────────┐
│   Obtains the questionnaire  │
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| Print the paper questionnaire | Design the on-line questionnaire |

| Filter the invalid questionnaire |

| Analysis of Variance |

| Experimental result analysis |

| Research conclusion and suggestion |

Figure 2-1 Research construction

3. Research conclusion

Section 1: Data collection

This research data were selected randomly by effective telephone in Taiwan, at the same time interviewing the enterprise which was using electronic commerce to run trading business.

Section 2: Research method

The analysis of variance was used to analyze the collecting data, and analyze the data which was needed.

Section 3: The experiment analyses

One: Data source

This questionnaire survey was designed from the essay: "The institutional environment for B2B e-commerce adoption: a quantitative study of electronics and textiles firms in Greater China and the USA (Ling Zhu and Sherry M.B. Thatcher, 2007)" which is adopted in the Chinese version questionnaire, through the original author's (Ling Zhu, 2008) agreement. Cronbach's α is one specific method of estimating the reliability of a measure. If a **Cronbach's** α value is greater than.7, it is considered to be acceptable (Hair, Black, Babin, Anderson, & Tatham, 2006). In this paper, **Cronbach's** α coefficient of reliability of.968 was calculated for the entire questionnaire survey, and B and C categories of reliability were measured.982 and.955 respectively, and the instrument was used several times, so it was considered adequate for the collect of data.

Two: Sampling

These samples were obtained approximately 310 manufacturers which were using the electronic commerce service in Taiwan, since October 12th, 2008 to November 12th, 2008 and rejecting invalid recycling questionnaire, the redundant recycling questionnaire and the incomplete questionnaire by the manual selection method. Effective recycling questionnaires are 197, and the returns-ratio is 63.5%.

Section 4: Analysis result

The correlation analysis between the industry's intense competition and the government policy was as follows:

<p align="center">•   THE INDUSTRY'S INTENSE COMPETITION AND GOVERNMENT POLICY</p>

Dependent	Average sum of squares	F value	P value
B-1 The government is promoting the implementation for B2B electronic commerce. For instance, nationwide electronic commerce strategy	9.078	3.930	.006**
B-2 The government is setting up the encouraging mechanism for B2B electronic commerce. For instance, fiscal subsidy, reduction of tax	9.428	3.380	.013*
B-3 The government is adopting some measures for B2B electronic commerce. For instance, improve the information and the communication infrastructure, reduce the related service expense	8.882	3.061	.021*
B-4 government is using self-own electronic commerce as a role. For instance, on-line government procurement	6.524	2.485	.049*

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

According to Table 3-1, all P values were smaller than 0.05, which showed that there was a significant difference between Taiwanese industry's intense competition and the electronic commerce related policy which provided by the government.

The correlation analysis between the industry's intense competition and completeness of the law was as follows:

<p align="center">TABLE 3-2   THE INDUSTRY'S INTENSE COMPETITION AND COMPLETENESS OF THE LAW</p>

Dependent	Average sum of squares	F value	P value
C-1 Present commercial laws (for instance, law of contract, tax law, wisdom property rights law and so on) are enough to standard B2B electronic commerce behavior.	12.486	4.300	.003**
C-2 Tradition principles of laws are nimble enough to adapt the electronic commerce practice which develops unceasingly.	8.250	3.152	.018*
C-3 The present law construction regards for the electronic commerce practice is clear, may be predicted, and connect consistently.	13.128	4.754	.002**
C-4 The judge and the court structure have the corresponding knowledge and the experience to try the B2B electronic commerce related cases.	14.121	4.902	.001**

C-5 Attorney and other legal practitioner have the corresponding knowledge and the experience to handle the B2B electronic commerce related cases.	11.536	4.232	.003**
C-6 It has the necessity to make revision for our legal framework to support the B2B electronic commerce practice.	2.592	1.371	.250

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

According to Table 3-2, all P values except C-6 were smaller than 0.05, which showed that there was a significant difference between the industry's intense competition and completeness of the law. In present commercial laws in Taiwan are enough to standard B2B electronic commerce behavior, the electronic commerce practice is clear, may be predicted and connect consistently, judge and the court structure have the corresponding knowledge and the experience to try B2B electronic commerce related case, attorney and other legal practitioner have the corresponding knowledge and the experience to handle project and B2B electronic commerce related cases (Kalakota, Ravi & Whinston, Andrew B., 1996).

4. Findings and conclusions

This chapter summarized the research conclusions which were obtained by way of the real diagnosis result, and proposed this research in the practice application's suggestion and the contribution theoretically. Moreover, it provided the suggestion to the following researchers who take it as reference.

Real diagnosis one: the government's electronic commerce policy encouraged the competition between manufacturing industry manufacturers more to hasten intensely, therefore, the government should consider whether to affect the mutual competition in Taiwan's manufacturing industry when it formulates related electronic commerce policy.

Real diagnosis two: if there was significant difference between the industry's intense competition and completeness of the law, which demonstrated that the manufacturing industry manufacturer tends to compete more intensely in the electronic commerce domain, and the related law will also tend to more perfect

5. References

[1]   Clayton, T., Chiara Criscuolo, Peter Goodridge and Kathryn Waldron (2004), "Enterprise e-commerce: measurement and impact," in OECD(ed.), The Economic Impact of ICT－Measurements, Evidence and Implications, Paris, 241-60.

[2]   Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., and Tatham R. L. (2006). Multivariate Data Analysis, 6/E, Pearson Education International.

[3]   Kalakota, Ravi & Whinston, Andrew B., Frontiers of Electronic Commerce, 1996

[4]   Lederer, A. L., Dinesh A. Mirchandani and Kenneth Sims (1996), "Electronic Commerce: A Strategic Application?" ACM, 277-87.

[5]   Ling Zhu and Sherry M.B. Thatcher (2007),The institutional environment for B2B e-commerce adoption: a quantitative study of electronics and textiles firms in Greater China and the USA。

[6]   Ling Zhu (2008), "The questionnaire was developed and authorized to use by Dr. Ling Zhu, College of Management, Long Island University C.W. Post Campus, New York, USA. The author reserves all rights related to the questionnaire." 。