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## CSFs for SMEs in Measuring e-Commerce Success

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Additional information is available at the end of the chapter

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### Abstract

For the last 20 years, while many electronic business (e-business)/electronic commerce (e-commerce) systems have been successfully adopted in businesses across different industries, a significant number have failed, especially in small to medium enterprises (SMEs). It is therefore necessary to explore critical success factors (CSFs) for SMEs in adopting e-commerce success. A blend of quantitative and qualitative research methods were used, consisting of literature review, focus group studies, pilot tests, and surveys. Total survey was of 11.54% (277 out of 2401). Data analysis procedures were adopted, which comprised initial reliability analysis, validity analysis, *t*-testing, factor analysis, and detailed reliability analysis. As a result, a total of 15 items were identified as common CSFs for SMEs successfully adopting e-commerce system, which could be adopted as an effective tool for assisting SMEs in effectively adopting e-commerce systems, and as a yardstick further to develop new methods for measuring e-commerce success.

**Keywords:** CSFs, measure, e-commerce success, SMEs

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### 1. Introduction

Since 2005, the number of small to medium enterprises (SMEs) involved in electronic business (e-business)/electronic commerce (e-commerce) has grown significantly. For the last 10 years, many e-commerce systems have been successfully adopted in businesses across different industries. The advent of e-commerce has also well documented advantages that if a business does not engage in doing so, one must question the wisdom of management [1]. However, a significant number have failed, especially in SMEs. Many researchers warn that SMEs are being laggards in adopting or in using e-commerce more strategically in business while the results seem to be disappointing and bring further gloom to the e-commerce adoption phenomenon in SMEs [2].

Even for businesses that did not fail, a numbers of businesses are not satisfied with e-commerce. There is still the question of whether there are any benefits from the use of IT/e-commerce since it may be hard to determine whether the benefits of doing business via the Internet outweigh its costs [3]. The trend is that investment in and integration of information systems (IT)/technologies, and quantifying the value contribution of e-commerce, has become an issue for managers seeking to justify the enormous expenditures involved in new IS/IT investment [4].

In recent years, therefore, researchers have enunciated the need for measuring e-commerce success. More and more research points toward gaining better understanding of e-commerce success. In the meantime, many issues and obstacles are challenging the e-commerce success in SMEs. Some issues are becoming the critical factors on successful e-commerce adoption. In literature review, critical success factors (CSFs) study has been one of important research fields in e-commerce adoption and e-commerce success. It is therefore necessary to explore CSFs for SMEs in adopting e-commerce success. Although the availability of CSFs does not guarantee e-commerce success, the better understanding of CSFs might increase the chance of e-commerce success [5]. Certain factors are important for the adoption decision of e-commerce in SMEs [6]. CSFs become thus the key to measure e-commerce success.

Over the past decade, various factors have been proposed and tested by researchers to determine what factors affect the adoption of e-commerce [7]. According to most current research, however, it is considered that businesses successful in adopting e-commerce are strongly dependent on the local business culture. While these studies attempted to investigate the factors that influence e-commerce adoption to be carried out mainly in developed nations [7], these factors have not always been consistent across studies [8].

Little research on e-commerce success has crossed country boundaries [5]. Research finds that SMEs in adopting and benefiting from e-commerce in developing countries face lack of strong empirical work to enable the establishment of models to find out the factors that can explain the adoption of e-commerce in developed regions [7]. The research supported that as management and behavioral research is substantially based on North American organizations and subjects, a majority of the theories in IS and e-commerce success model have western perspectives, which might not be valid for other national cultures [9]. The report argued that there were still lingering questions regarding the significance of some of these factors due to a lack of common set of factors being tested and the scarcity of contextual variables being used [8].

If common CSFs exist for the adoption of e-commerce systems across different countries, they might be further used as a global benchmark business performance indicator to develop a better and more effective measure for SMEs successfully adopting e-commerce system [5].

## 2. Background and literature review

At the beginning of 2000, Benbasat, Ives, and Piccoli conducted a survey of the ISWorld Community on the "Electronic Commerce Top Research Questions" which indicated that e-commerce success was one of the most important e-commerce research issues [10]. Thus, a

growing number of studies discussed e-commerce success [10]. By integrating strategy content and process perspectives, researchers begin to more fully explain why, when, and how certain firms are successful with e-commerce systems, while others remain hesitant, unwilling, or unable to change [11].

2.1. Importance of measuring e-commerce success

In past years, researchers have enunciated the need for measuring e-commerce success [12] as:

- i. *Avoiding failure again.* Even though many cases of successful e-commerce implementation have been widely reported, a number of noteworthy failures have also occurred world-wide. On the one hand, even “best practice” companies will display weaknesses in some areas of systems management, while organizations with poor delivery records for new systems will exhibit strengths [13]. It is no wonder that business executives regard new systems development as a “black art” [13].

On the other hand, many analysts consider the failure of e-commerce as a major cause of the dot-com crash [14]. **Table 1** shows that some failed cases have been reported in the evaluation of e-commerce and information systems (IS) in recent years.

Reports	Failed (%)	Cases
U.S	80.0	Large software projects
U.S	90.0	e-Commerce/e-business initiatives
U.S	83.0	Software application initiatives
Canada	31.0	SMEs adopted an e-commerce solution
Europe	61.0	Large manufacturing in cost-saving benefits of e-commerce
Europe	88.3	Smaller manufacturing in cost-saving benefits of e-commerce
Australia	68.0	Small-sized enterprises adopted in e-commerce/e-business
Australia	66.0	Middle-sized enterprises adopted in e-commerce/e-business

Source: see [12].

**Table 1.** Reports on failures in the implementation of IS.

- ii. *Learning from experience.* The development of new systems is a complex matter [13]. These companies who have not yet adopted e-commerce should learn from the experience of those companies already doing so [15].
- iii. *Indicating actual business benefits.* Devising robust techniques and tools to detect true e-commerce use and success is essential to the e-commerce area in SMEs [16]. Early research in Australia highlights the need for e-commerce metrics to evaluate benefits [17]. Numerous SMEs fail to exploit the opportunities of e-commerce because of their lack of awareness of the potential and direct real benefits [18, 19]. Organizations need to identify performance measures that will allow them to assess the effectiveness of the introduction of IT/e-com-

merce [3]. One could expect them to be the high adopters of e-commerce if a business case was made [20].

The research highlighted that SMEs need to weigh up the value of utilizing the technology to gain return on their investment [21]. If companies do not believe that e-commerce can provide them with relative advantage after they have already adopted it, it is likely that the implementation would be discontinued [22]. When a firm can observe the benefits that e-commerce has brought to the business, it is very likely that the firm will increase the depth and breadth of e-commerce implementation [22]. Metrics can help a company capture a more complete picture of whether the e-commerce initiative is meeting its objectives effectively [23].

- iv. *Requirement for adoption guidelines.* Organizations need to identify the basic rationale for the applicability and use of IT/e-commerce for their particular business needs [3]. In light of the current pace and pressures of business, the vast majority of companies believe they need structural guidelines for making viable investment and implementation decisions [13]. They need to have a strategic viewpoint for Internet deployment based on sound business principles [3].
- v. *For further improvement and development.* An evaluation of e-business applications is necessary for further improvements, management strategies, and the deployment of technological development [17], which should be critical for the successful employment of future e-commerce systems [24]. The research found that in order to implement e-commerce most of the companies interviewed were facing a complete overhaul of their existing strategies for which they are not ready at the moment [25].

## 2.2. Difficulty in measuring e-commerce success

A number of studies have shown the difficulties in measuring e-commerce success [12] as:

- i. *Involvement of top management.* Most organizations lack a defined framework for assessing readiness, measuring potential impact, and separating the mediocre e-business initiatives from the top tier [13]. It is therefore necessary to start at a very basic level using an e-commerce mentoring program that closely involves owners and managers [20]. There is a serious need for closer integration with top management in the process [26].
- ii. *e-Commerce difference with traditional IS.* e-Commerce systems are very different from traditional systems [27]. On the one hand, a strong theme identified by IS professionals is the requirement, largely a result of competitive pressure, to develop e-commerce solutions more rapidly than is previously the case for traditional IS projects [26]. On the other hand, electronic customer and supplier interaction must be seamlessly integrated with existing business processes [28].
- iii. *Beyond Internet technology.* The research indicates that the availability of Internet/information technology (IT) and its adoption by the society are two different things [29]. Many researchers support that e-commerce is more about strategy than about technology [30]. The report states that although technology matters, marketing skills will still play a major

role in global marketing: a site with the latest technologies but one that does not meet customer expectations will not be successful [31].

The research further mention that many companies have found out the hard way that successful e-commerce requires more than a flashy web presence [28]. The challenge of managing e-commerce extends far beyond managing technological quality, and its scope transcends corporate domains, requiring business leaders within and across enterprises to synchronize their business strategies, processes, brands, and technologies [13].

In fact, users or customers do not care about technology; they care about services and their effective delivery [32]. Therefore, the measurement of e-commerce success is based on deployment of people, technology, and strategy to accelerate improvement cycles and increase profit margins [33].

- iv. *Lack of experiences.* Many economic benefits of e-commerce projects are seen as difficult to measure because there is not much historical data and experience to draw upon when developing or applying metrics [34].

### 2.3. Existing factor studies for measuring e-commerce success

The concept CSFs was first introduced by Rockart in 1979 for defining chief executives' information needs as follows:

*"Critical success factors thus are, for any business, the limited number of areas in which results, if they are satisfactory, will ensure successful competitive performance for the organization. They are the few key areas where "things must go right" for the business to flourish. If results in these areas are not adequate, the organization's efforts for the period will be less than desired."* [35]

Therefore, the factor study has been used as one of the two main approaches researchers to understand success and failure in IS project while another one is the process study [36]. However, prior CSFs studies may differ from current business needs. These factors in e-commerce success have encountered certain difficulties in economic environment [37]. Therefore, certain up-to-date CSFs need to be explored for measuring e-commerce success.

## 3. Research methodologies and data collection

### 3.1. Research methodologies

A blend of quantitative and qualitative research methods were conducted consisting of literature review, focus group studies, pilot tests, and surveys [5]. Two focus group studies were conducted including one focus group study in Australia and another in China to define the issues to be surveyed, and pilot tests were then carried out with open questions including a total of 20 businesses—10 for each in Australian and China—which were to modify the proposed questionnaires and any errors [5].

Based on above research steps, 50 research items were then categorized (F1–F50) including



human resource factors (six), technology factors (seven), website factors (nine), security factors (four), management factors (four), relationship factors (six), organizational finance factors (five), marketing factors (six), and culture factors (three) (see Appendix) [5]. Surveys were then conducted in both Australia and China.

### 3.2. Research surveys

Research survey methods might be categorized into post mail, face-to-face interview, telephone survey, web/online surveys, and e-mail surveys [5]. With the growing popularity of the Internet, e-surveys (including e-mail survey), Internet/online/web surveys offer the possibility of very rapid surveying, a feature that has been well documented in past research [38]. e-Surveys have become more commonplace [39]. Among them, e-mail surveys are used widely in e-commerce research because of two main considerations (cost and time for data collection or called response speed). In this research, therefore, e-mail surveys were then conducted for collecting data in both Australia and China. A five-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree) was used for measuring these surveys. These surveys only focused on staff at the business managerial level.

### 3.3. Data collection

A total of 3143 solicitations were sent to SMEs including Australian SMEs (2040) and Chinese SMEs (1103) [5]. SPSS data analysis solution highlights that there is rarely a good reason for sample sizes above 1500 or so [40]. This is also supported by other report that samples over 1500 are very rarely needed even in the most complex analyses [41].

Of these, 742 of businesses did not respond and could not be contacted including Australian SMEs (512) and Chinese SMEs (230), and 2401 of businesses could be contacted including Australian SMEs (1528) and Chinese SMEs (873), and a total of contact response rate for these businesses was 11.54% (277 out of 2401) with a usable response rate of 7.54% (181 out of 2401) [5]. A random sample with a size of about 200 is reliable for data obtained generally [42]. Therefore, the data collected in this research is acceptable with reliability.

## 4. Data analysis and results

Data analysis procedure comprised initial reliability analysis, validity analysis, *t* testing, factor analysis, and detailed reliability analysis [5].

### 4.1. Initial reliability analysis and *t* testing

The initial reliability analysis results from Australian surveys showed that 48 items had a total value of Cronbach's alpha increased from 0.911 to 0.913 if the two items (F31 and F33) were eliminated during this reliability procedure and from Chinese surveys it showed that the remaining 48 items had a total value of Cronbach's alpha increased from 0.924 to 0.929 if the two items (F14 and F43) were eliminated. The results showed that they were strong evidence of very good reliability [5] (see **Table 2**).

For *t* testing, several levels of statistical significance have been used including 0.05, 0.01, and 0.001 [5]. The most common value used as the cut-off for significance level is 0.05. The smaller the significance value, the lower the risk of rejecting the null hypothesis when it is true; however, this needs to be balanced by the risk of accepting the null hypothesis when it is not true [43]. Therefore, there is a necessity to analyze data at such critical significant levels of 0.5, 0.01, and 0.001 separately, and then make decision on which significant level should be used [5]. **Table 2** shows a summary of results from on-sample *t* testing.

Item	China (mean, <i>t</i> (111))	Australia (mean, <i>t</i> (68))
F1	(3.94, -0.741)	(3.88, -1.090)
F2	(3.97, -0.371)	(3.96, -0.418)
F3	(3.78, -2.575)*	(3.41, -5.063)***
F4	(3.96, -0.470)	(3.55, -3.875)***
F5	(3.94, -0.818)	(3.52, -3.882)***
F6	(3.96, -0.491)	(4.10, 1.223)
F7	(3.60, -5.043)***	(3.33, -6.374)***
F8	(3.88, -1.650)	(4.13, 1.381)
F9	(3.77, -2.760)**	(4.20, 2.414)
F10	(3.73, -3.473)**	(4.12, 1.183)
F11	(3.90, -1.491)	(3.87, -1.320)
F12	(3.93, -0.956)	(4.01, 0.151)
F13	(3.66, -4.762)***	(3.90, -1.187)
F14	Eliminated	(3.86, -1.522)
F15	(3.24, -10.225)***	(3.09, -8.552)***
F16	(3.88, -1.434)	(4.19, 1.852)
F17	(3.81, -2.241)*	(4.25, 2.642)
F18	(4.06, 0.943)	(4.46, 5.076)***
F19	(3.54, -5.793)***	(3.13, -7.341)***
F20	(3.79, -2.622)*	(4.17, 1.686)
F21	(3.62, -5.099)***	(3.86, -1.276)
F22	(3.97, -0.403)	(4.10, 1.123)
F23	(4.04, 0.638)	(4.48, 6.524)***
F24	(4.01, 0.123)	(4.41, 5.386)***
F25	(4.14, 2.466)*	(4.25, 3.259)**
F26	(4.13, 1.892)	(4.48, 4.983)***
F27	(3.60, -4.179)***	(3.04, -9.570)***



Item	China (mean, <i>t</i> (111))	Australia (mean, <i>t</i> (68))
F28	(4.14, 2.173)*	(4.13, 1.584)
F29	(3.98, -0.300)	(4.12, 1.526)
F30	(3.65, -4.594)***	(3.62, -4.071)***
F31	(3.42, -7.007)***	Eliminated
F32	(3.96, -0.628)	(4.13, 1.536)
F33	(3.52, -6.427)***	Eliminated
F34	(3.51, -6.545)***	(3.46, -7.048)***
F35	(3.62, -5.415)***	(3.26, -8.521)***
F36	(3.63, -5.216)***	(3.61, -4.021)***
F37	(3.26, -9.268)***	(3.52, -4.491)***
F38	(3.71, -3.558)**	(3.97, -0.307)
F39	(3.63, -5.575)***	(3.87, -1.453)
F40	(3.74, -4.378)***	(4.07, 0.869)
F41	(3.97, -0.446)	(3.99, -0.191)
F42	(4.03, 0.377)	(4.07, 0.928)
F43	Eliminated	(3.51, -4.179)***
F44	(4.04, 0.799)	(3.99, -0.184)
F45	(4.09, 1.516)	(3.94, -0.705)
F46	(3.96, -0.699)	(4.17, 2.046)*
F47	(3.96, -0.649)	(4.20, 2.166)*
F48	(3.79, -2.999)**	(3.74, -3.007)**
F49	(3.78, -3.867)***	(3.62, -4.413)***
F50	(3.88, -2.009)*	(3.41, -6.916)***

\**p* < 0.05.  
\*\**p* < 0.01.  
\*\*\**p* < 0.001.  
Eliminated stands for item deleted during reliability analysis.  
Source: see [5].

**Table 2.** A summary of one-sample *t* testing.

**4.2. Factor analysis and reliability analysis: identifying reasonable significance level**

For making decision on which significant level should be used to increase the reliability and validity of the data, factor analysis and detailed reliability analysis of the data for the common items was then conducted at significance levels of 0.05, 0.01, and 0.001 [5], respectively.

This implies that the results for common items obtained at a significance level of 0.001 appear to be more reasonable than those for significance levels of 0.05 and 0.01 [5] as follows (see **Table 3**):

- *Cronbach's alpha* (0.837) at significance level of 0.001 is greater than at 0.05 and 0.01 levels (0.831),
- the *percentage of cumulative variance* for the main components (64.843%) at significance level of 0.001 is greater than at 0.05 and 0.01 levels (60.813%), and
- the *average communality* (0.65) at significance level of 0.001 is greater than at 0.05 and 0.01 levels (0.604).

Item	Mean (China, Australia)	At 0.05 level	At 0.01 level	At 0.001 level
F1	(3.94, 3.88)	✓ [1]	✓ [1]	✓ [5]
F2	(3.97, 3.96)	✓ [1]	✓ [1]	✓ [5]
F6	(3.96, 4.10)	✓ [1]	✓ [1]	✓ [5]
F11	(3.90, 3.87)	✓ [2]	✓ [2]	✓ [4]
F12	(3.93, 4.01)	✓ [2]	✓ [2]	✓ [4]
F22	(3.97, 4.10)	✓ [2]	✓ [2]	✓ [3]
F25	(4.14*, 4.25**)	✓ [2]	✓ [2]	✓ [3]
F28	(4.14*, 4.13)	✓ [1]	✓ [1]	✓ [2]
F29	(3.98, 4.12)	✓ [1]	✓ [1]	✓ [2]
F32	(3.96, 4.13)	✓ [1]	✓ [1]	✓ [2]
F41	(3.97, 3.99)	✓ [1]	✓ [1]	✓ [3]
F42	(4.03, 4.07)	✓ [3]	✓ [3]	✓ [1]
F44	(4.04, 3.99)	✓ [3]	✓ [3]	✓ [1]
F45	(4.09, 3.94)	✓ [3]	✓ [3]	✓ [1]
F48	(3.79**, 3.74**)			✓ [3]
No. of items		14	14	15
No. of components		4	4	5
Average communality		0.604	0.604	0.65
% of cumulative variance		60.413%	60.413%	64.843%
Reliability (Cronbach's alpha)		0.831	0.831	0.837

Note: ✓ means that the item was accepted during one-sample *t* testing.

\*  $p < 0.05$ .

\*\* $p < 0.01$ .

[1], [2], [3], [4], and [5] stand for the *i*th component.

Source: see [5].

**Table 3.** Summary of factor analysis and reliability analysis at significance levels.

### 4.3. Results

From the final results of the original 50 research items chosen, 15 items were finally accepted as common CSFs for both the countries [5] and they are as follows:

- F1 (CEO IT/e-commerce/e-commerce marketing knowledge),
- F2 (senior staff IT/e-commerce knowledge),
- F6 (regular staff training in the appropriate or relevant IT skills),
- F11 (flexibility of e-commerce systems to change depending on business process),
- F12 (ability to keep up with the rate of technology change (externally)),
- F22 (the response time effectiveness/performance of an e-commerce site),
- F25 (trust in the interface design and information displayed in a website),
- F28 (support from top management/decision-maker),
- F29 (support from senior management),
- F32 (customer pressure/acceptance/interest),
- F41 (cost associated with keeping up to date or upgrade of e-commerce system),
- F42 (decision-maker's effective e-commerce marketing plan),
- F44 (effective e-commerce marketing strategy),
- F45 (adoption of different e-commerce marketing strategies based on different business requirements/needs), and
- F48 (the consistency of graphics and backgrounds with business culture used in a website).

## 5. Conclusions, implications, and limitation

In conclusions, the understanding of CSFs cannot guarantee a success for using e-commerce systems and gain high e-commerce business satisfaction, but it will increase the success rate. Therefore, the better understanding of CSFs for using e-commerce systems will be the key to measure e-commerce success. As a result, a total of 15 items (F1, F2, F6, F11, F12, F22, F25, F28, F29, F32, F41, F42, F44, F45, and F48) were identified as common CSFs for SMEs to successfully adopt e-commerce system, which could be adopted as an effective tool for assisting SMEs in effectively adopting e-commerce systems, and as a yardstick further to develop new methods for measuring e-commerce success.

The implications of this approach to practitioners are that the results should benefit the service industry SMEs and e-commerce service providers (ESPs) [5] in the following ways:

- Providing SMEs that are yet to adopt e-commerce systems a sound basis for planning the implementation of these systems.
- Providing SMEs adopting e-commerce systems with tools to measure the effectiveness and efficiency of those systems in order to improve them.

- Providing guidance to SMEs adopting e-commerce systems with factors to concentrate on for improving or reengineering their business processes.
- Assisting ESPs to better understand the CSFs for SMEs adopting e-commerce systems.
- Assisting ESPs to better anticipate business demands and expectations of SMEs in the adoption and use of e-commerce systems—such as in future system design, development, and maintenance.

The major limitation with this research was the low response rate for Australian surveys. Reason could be that these surveys were only focused on staff at the business managerial level and used a relatively large number of survey items (50) [5].

## 6. Future research directions

The results are applicable to a specific size of enterprise (SME), a specific industry (service), and two specific cultures (Australia and China). Further research is needed to determine whether they are applicable to other enterprises, industries, and cultures.

Further research is also needed to be conducted to use the common CSFs (15) as a benchmark business performance indicator to develop a better and more effective measure for SMEs successfully adopting the e-commerce system.

## Appendix: Survey questions

- Human resource factors (six), including:
  - F1. CEO's IT/e-commerce/e-commerce marketing knowledge.
  - F2. Senior staff IT/e-commerce knowledge.
  - F3. Junior staff IT/e-commerce knowledge.
  - F4. Hiring IS/IT staff.
  - F5. Hiring e-commerce staff.
  - F6. Staff training regularly in the appropriate or relevant IT skills.
- Information technology factors (seven), including:
  - F7. The previous experimental use of e-commerce system.
  - F8. The compatibility and integration with the existing information system within business system.
  - F9. Complexity (ease of use or learning) of e-commerce systems.
  - F10. The ability of the existing information system to keep up to date or upgrade (internally).
  - F11. Flexibility of e-commerce systems changes depends on business process.
  - F12. The ability to keep up with the rate of technology change (externally).
  - F13. Appropriate trial time in adoption of e-commerce system.
- Website factors (nine), including:
  - F14. Outsourcing website development when time limited.
  - F15. Only outsourcing the part of website services.
  - F16. Business control and maintenance of website.
  - F17. Website design attractiveness.

- F18. Website's systematic structure is clear, easily navigated, and convenient.
- F19. Designing website in multilanguage.
- F20. Website's high ranking in the best known search engines.
- F21. Website's links with other strategic websites/pages.
- F22. The response time effectiveness/performance of an e-commerce site.
- Security factors (four), including:
  - F23. High level of security of e-commerce systems.
  - F24. Privacy of e-commerce systems.
  - F25. Trust in the interface design and information displayed in a website.
  - F26. Reliability of website.
- Management factors (four), including:
  - F27. Government support.
  - F28. Support from top management/decision-maker.
  - F29. Support from senior management.
  - F30. Flexibility of business management changes depends on e-commerce system requirements.
- Business relationship factors (six), including:
  - F31. Competitive pressure from competitors/industry.
  - F32. Customer pressure/acceptance/interest.
  - F33. Supplier pressure/interest.
  - F34. Pressure/interest from collaboration/partnership.
  - F35. Encouragement by other agencies or government to adopt e-commerce system.
  - F36. Decision-maker's maintenance of professional links with professional associations.
- Organizational finance factors (five), including:
  - F37. Financial help from outside of business at the initial development stage.
  - F38. Return on investment (ROI) from e-commerce investment.
  - F39. Financial resources priority in e-commerce system development.
  - F40. Affordable access to e-commerce system.
  - F41. Cost associated with keeping up to date or upgrade of e-commerce system.
- Marketing factors (six), including:
  - F42. Decision-maker's effective e-commerce marketing plan.
  - F43. Firms' ability to act globally or the resources required doing business globally.
  - F44. Effective e-commerce marketing strategy.
  - F45. Adoption of different e-commerce marketing strategies based on different business requirements/needs.
  - F46. Having a positive image with a relevant business name on the Internet.
  - F47. Having a consistent/appealing/easy to remember Internet-based brand name.
- Culture factors (three), including:
  - F48. The consistency of graphics and backgrounds with business culture used in a website.
  - F49. e-Commerce systems' consideration of different business culture.
  - F50. e-Commerce systems' consideration of the different social culture.

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