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Haruyoshi Takaoka

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BUSINESS-TO-CONSUMER  
ELECTRONIC COMMERCE IN JAPAN

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A Project  
Presented to the  
Faculty of  
California State University,  
San Bernardino

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In Partial Fulfillment  
of the Requirements for the Degree  
Master of Business Administration

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by  
Haruyoshi Takaoka  
December 2004

BUSINESS-TO-CONSUMER  
ELECTRONIC COMMERCE IN JAPAN

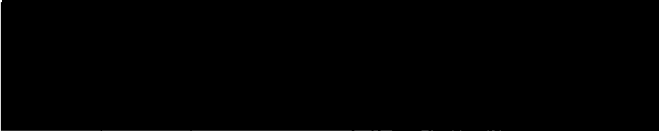
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A Project  
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California State University,  
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by  
Haruyoshi Takaoka  
December 2004

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Date

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## ABSTRACT

The volume of Business-to-Consumer (B2C) electronic commerce (e-commerce) in Japan in 2001 was 13.5 billion dollars, while the US volume was 71 billion dollars. The data indicated that the current situation of B2C e-commerce in Japan was far below the US level. Hence, the purpose of this study was to determine Japanese consumers' B2C e-commerce purchases, their attitudes toward e-commerce, and the attributes that affect their Internet patronage among Japanese e-commerce businesses.

Findings from a survey among 112 Japanese respondents indicated that most had online purchase experiences in the past and intended to use e-commerce in the future. The respondents reported that convenience was the primary advantage of e-commerce, while security issues were the major disadvantage. Further, security issues were the attributes that affected Internet patronage among Japanese e-commerce businesses. Implications suggested that Japanese companies should improve convenience and security factors to attract consumers and increase their sales via e-commerce.

## ACKNOWLEDGMENTS

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Finally, I would like to thank all of my family, relatives, and friends all over the world that have supported me through this endeavor.

DEDICATION

To my family

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## CHAPTER ONE

### BACKGROUND

#### Introduction

According to the U.S. Census Bureau (2001), the volume of Business-to-Consumer (B2C) electronic commerce (e-commerce) in the US market in 2001 was 71 billion dollars with the percentage of total sales accounting for 6.66 percent. On the other hand, the Ministry of Economy, Trade and Industry of Japan ([METI], 2001) reported that the volume of B2C e-commerce in Japan in the same year was 13.5 billion dollars and that the percentage to total sales accounted for 4.19 percent.

The data indicates that the current situation of B2C e-commerce in Japan is far below the US level. METI expected that the volume of e-commerce in Japan would increase to 148 million dollars by 2006 (METI, 2001). However, although it is forecasted, e-commerce businesses should not rely on external factors such as growth of personal computers and the Internet but should try to understand the attitudes of consumers and develop strategies to attract them (Fujitsu Research Institute, 2002). To play a major role in a rapidly growing market,

companies involved in and interested in e-commerce must consider how to grow their business.

To analyze the market in Japan and to develop successful marketing strategies, companies need to examine why the rate of adoption is much slower in Japan than that of the US. Some of the reasons why e-commerce in Japan has not developed as fast as it has in the US are the infrastructure of personal computers and the Internet, Japanese consumers' attitudes toward e-commerce, and strategies employed by Japanese e-commerce businesses (Inoue, 2002). The companies interested in starting e-commerce businesses in Japan should consider how consumers behave toward e-commerce and how they can attract consumers with their e-commerce marketing strategies.

#### Purpose of the Project

Given the above, the purpose of the project was to examine the current situation of B2C e-commerce in Japan, consumers' online purchasing behavior, and attributes affecting online purchases. Since many companies are interested in starting or have started B2C e-commerce businesses, this study would aid companies in developing marketing strategies that would grow their businesses and

build loyalty among consumers. Specifically the objectives of the study were as follows:

1. Determine Japanese consumers' B2C e-commerce purchases in the past year,
2. Determine Japanese consumers' attitudes toward e-commerce, and
3. Determine the attributes that affect Internet patronage among Japanese e-commerce businesses.

#### Significance of the Project

Although e-commerce is emerging as an important marketing channel, it has not been a popular one in the Japanese market as mentioned previously. Companies interested in starting B2C e-commerce businesses in Japan need to determine the most effective strategies that will improve their online businesses and grow the industry in the country.

#### Limitations of the Project

The study was limited to a convenience sample of Japanese students at a southwestern university and Japanese people living inside and outside Japan. Further, the study was also limited to B2C businesses in Japan.

## Definition of Term

The following term is defined as they apply to the project.

Electronic commerce (e-commerce): A term referring to a wide variety of Internet-based business models. Typically, an e-commerce strategy incorporates various elements of the marketing mix to drive users to a Web site for the purpose of purchasing a product or service. (American Marketing Association, 2003)

## Organization of the Project

This project is divided into five chapters. Chapter One provides an introduction into the context of the problem, purpose of the project, significance of the project, limitations and definitions of terms. Chapter Two consists of a review of relevant literature. Chapter Three documents the steps used in developing the research instrument. Chapter Four presents the results from the project and Chapter Five provides conclusions and implications drawn from the study's findings. Project references follow Chapter Five and Appendices for the project consists of: Appendix QUESTIONNAIRE.

## CHAPTER TWO

### REVIEW OF THE LITERATURE

#### Introduction

Chapter Two consists of a discussion of the relevant literature. Specifically, the following four areas were reviewed: 1) the current situation of B2C e-commerce in Japan, 2) the benefits, motivations, and obstacles of e-commerce, 3) consumer online purchase behavior, and 4) the strategies used by e-commerce companies.

#### Current Situation of Electronic Commerce in Japan

##### Market Volume

According to research by the Ministry of Economy, Trade and Industry [METI] of Japan, the total volume of e-commerce in the country in 2001 was approximately 322 billion US dollars (METI, 2002). Business-to-Business (B2B) e-commerce accounted for 309 billion dollars or 95.9 percent of all online revenue, while B2C e-commerce businesses accounted for 13.5 billion dollars or 4.19 percent (METI, 2002). In the US, the total volume of e-commerce in 2001 was 1,066 billion dollars (Census Bureau, 2003). B2B e-commerce business accounted for 93.34



percent, while B2C e-commerce accounted for 6.66 percent (Census Bureau, 2003).

Given this, the total volume of e-commerce in Japan accounted for 30 percent of the total volume of that in the US. METI (2002) concluded that the diffusion of B2C e-commerce in Japan was almost three years behind that of the US market.

#### Transition of Business-to-Consumer Electronic Commerce

Since 1998, when METI started researching the Japanese e-commerce market, the volume of B2C e-commerce business had been increasing rapidly, even though the growth rate had slowed. For example, in 1998, volume was 586 million dollars, while in 1999 it was three billion dollars, a growth rate of five times the prior year's figure. However, the volume in 2000 was 7.5 billion dollars, 2.5 times as much as it was in 1999. Finally, the volume in 2001 was 13.5 billion dollars, a growth rate of 1.8 times the 2000 figure (METI, 2002). METI expects that the volume of B2C e-commerce in Japan will be approximately 148 billion dollars in five years, or 5.8 percent of the total e-commerce revenue (METI, 2002).

METI (2002) noted that the percentage of automobile and real estate sales accounted for almost half of the

total volume of B2C e-commerce revenue in 2001. On the other hand, in 2006, it is forecasted that the percentage of various services and travel online revenue will increase and biased distribution of product segments will be balanced (METI, 2002).

Table 1. Composition of Products and Services in 2001

Products and Services	Percent
Automobile	23.4%
Real estate	22.0%
PC or related products	10.0%
Travel	8.0%
Entertainment	7.3%
Other goods	6.6%
Various Services	4.7%
Finance	4.2%
Clothing, Accessory	3.9%
Grocery	3.8%
Furniture, Sundries, Hobby	3.3%
Book, Music	2.3%
Gifts	0.5%
Total	100.0%

Source: METI, 2002

#### Benefits, Motivations, and Obstacles of Electronic Commerce

According to ECOM (1999), most consumers reported that the major benefits of e-commerce were purchasing from home and at any time. Windham and Orton (2000) found that convenience, timesavings, and information availability led

the list of e-commerce benefits and consumers believed that shopping online was faster and saved more time.

Info Com Research, Inc. (2002) noted that the top motivation for purchasing online was price (2002). Similarly, Strauss and Frost (1999) noted that price was one of the most important benefits of shopping online. Their study found that using shopping agents, users can find the lowest price on any product online. Very often this price will be significantly lower than the equivalent price in a neighborhood retail outlet. The reason that online retailers can charge less is because they are not renting and staffing expensive retail space (1999). Additionally, Windham and Orton (2000) noted that consumers perceived that products were cheaper online than in brick and mortar stores.

Although buying online has many benefits, Krantz (1998) found that consumers did not use the Internet for purchases primarily because of fear of hackers (21%). Additionally, Krantz (1998) found that lack of product assortments (16%), inability to see the actual product (15%), necessity to reveal personal information (13%), poorly designed sites (8%), company reputation (6%), and fear of their money or merchandise getting lost (6%) were other reasons most cited for not purchasing online.

Windham and Orton (2000) found that even among veteran online shoppers—people who have shopped on many occasions and have at least one year of experience “under their belts”—are concerned about privacy. Similarly, ECOM (1999) found that the possibility of leaking private information and the possibility of a wrong charge led the list of consumers’ anxiety regarding e-commerce purchases. Additionally, Windham and Orton (2000) found that only seven percent of consumers claimed that it didn’t alter their behavior at all and that they were not worried about how e-commerce sites used personal, financial, or purchasing data.

Although credit cards provide an easy method of payment for products and services online (Windham & Orton, 1999), many consumers are reluctant to provide credit card and other information over the Internet (Strauss & Frost, 1999). Credit cards have become the dominant payment mechanism for most online retail transactions, but using them can be risky because the Internet is an unsecured medium. As credit card numbers and expiration dates are routed from computer-to-computer, the propensity of security breaches increases (Raysman & Brown, 1997).

## Consumer Behavior Toward Electronic Commerce

Business organizations want to know the characteristics of Internet users so that they can determine whether or not their markets are part of the online community (Strauss & Frost, 1999). Furthermore, online marketing requires a careful understanding of how consumer behavior changes in an online world (Hanson, 2000). Windham and Orton (2000) identified benefit-oriented segments that included: convenience shoppers, price-sensitive shoppers, comparison shoppers, brand loyal shoppers, focused shoppers, and storefront-adverse shoppers. Convenience shoppers were time deprived and often valued their time more than money. Price-sensitive shoppers switched sites they bought from if they learned of a better price on another site. Comparison shoppers enjoyed the thrill of the hunt, and the Web provided a perfect adventure for them. Brand loyal shoppers became loyal to brands they trusted over the years and were not interested in switching. Focused shoppers went to specific Web sites with the intent of buying specific products. Finally, storefront-adverse shoppers disliked the physical act of shopping and the Internet provided a welcomed relief (Windham & Orton, 2000).

## Strategies Used for Electronic Commerce

### Product Strategy

Clemente (1998) claimed that products with successful online sales share attributes that make them particularly attractive to Internet shoppers. The important factors that contribute to a successful e-commerce product strategy are nonperishability, high relative value, information intensity, and high-technology (Clemente, 1998). Nonperishability means that the items can be shipped by a common carrier without spoiling in transit. Additionally, products, such as personal computers, that have a high relative value are purchased online, whereas consumers are not likely to buy low-involvement products such as light bulbs or razors online. Information intensive products include those items that require research that can be conducted online. Finally, online shoppers have an interest in high-tech products. Strauss and Frost (1999) claimed that home furnishings, toys, tools, home repair, and apparel have low business opportunities because the products that consumers purchase online are those that they do not mind doing their own research for buying.

Hanson (2000) noted that "Product Assortment" was one of the fundamentals that drove buyers to buy online. The

range of products online can be larger to better match buyers' desires without the operational costs of brick-and-mortar retailers. Moreover, online retailers can take advantage of centralized inventory savings to keep prices down while being cost-effective in stocking a much wider assortment of products (Hanson, 2000).

### Pricing Strategy

The simplest reason to buy online is to save money and shoppers use the Internet to find bargains (Hanson, 2000). According to Strauss and Frost (1999), there are many forces driving prices down on the Internet. First, consumers can easily search nationwide or even worldwide for the lowest price on a given item. Second, all new Internet products are immediately visible to their competition. Third, many Internet companies are financed through venture capital or stock issues. Finally, costs are often lower with this channel, which can result in higher profits and margins or lower prices. In this climate of downward price pressure, Strauss and Frost (1999) claimed that following three pricing strategies contributed to successful online selling; these were penetration pricing, price leadership, and pricing promotions. Penetration pricing is particularly effective in a price-sensitive market like the Internet. Price

leadership strategies can be accomplished through Internet marketing cost efficiencies. Finally, many online retailers have turned to promotional pricing to encourage trial and repeat purchasing (Strauss & Frost, 1999).

### Distribution Strategy

As personal computers and the Internet have been emerging as major tools at home and at work, e-commerce has become a vital marketing channel (METI, 2002). Companies that do embrace electronic commerce must decide on the best distribution channel structure (Hanson, 2000). Strauss and Frost (1999) claimed that disintermediation, or eliminating intermediaries, should be done for appropriate distribution channels. Disintermediation has the potential to reduce costs since each intermediary must add to the price of the product to make a profit. Taken to its extreme, disintermediation allows suppliers to transfer goods and services directly to the consumer in direct channels (Strauss & Frost, 1999).

On the other hand, channel conflict is one of the main concerns of companies as they add e-commerce channels to their distribution structures (Hanson, 2000). Traditional distribution channels are threatened by online e-commerce with threats coming from final customers asking for direct extranet links to manufacturers, manufacturers



launching e-commerce sites, and online intermediaries that provide valuable information (Hanson, 2000).

### Promotion Strategy

Strauss and Frost (1999) analyzed promotion strategies within three categories: Internet advertising, Internet public relations, and sales promotion. All paid-for space on a Web site or in an email was considered advertising (Strauss & Frost, 1999). Internet public relations was one marketing communication tool that is appropriate for diverse group of stakeholders (Strauss & Frost, 1999). Finally, sale promotion activities include coupons, rebates, product sampling, contests, sweepstakes, and premiums (Strauss & Frost, 1999).

Clemente (1998) reported that 95 percent of online shoppers said that they were satisfied or very satisfied (48%) with their purchase experience. Further, consumers tended to become more satisfied as they made more purchases. Experts agreed that getting consumers to make the first purchase was the most important. This suggested that promotion strategies to enhance trial and ensure repeat purchases played a major role in B2C success.

## CHAPTER THREE

### METHODOLOGY

#### Introduction

Chapter Three outlines the steps used in gathering the data. Specifically, the researcher explains the sampling method employed and development of the survey instrument.

#### Population and Sample

The population for this study were Japanese consumers. Hence, a convenience sample of 50 drawn from Japanese students enrolled at a southwestern university was employed. Additionally, a sample of Japanese consumers living in their home country were randomly selected and emailed the questionnaire for completion.

#### Instruments

Based on the purpose and objectives of the study, a self-administered questionnaire was developed to determine Japanese consumers' B2C e-commerce purchases, their attitudes toward e-commerce, and the attributes that affect their Internet patronage behavior among Japanese e-commerce businesses. Questions were measured using a

variety of techniques including Yes-or-No response, multiple-choice, and Likert and modified Likert scales.

The questionnaire was divided into four sections. In Section I, respondents were asked to provide their online purchase experiences in the past one year. The questions included, whether or not they made online purchases, how many times they purchased online, how much they spent, the products or services purchased, what payment methods used, and whether or not they intended to buy online in the future. Products and services listed in question 5 were taken from the study by METI (2002). Additionally, the questions regarding past online purchases were taken from a study of catalog patronage behavior by Seitz (1987).

Section II sought consumers' attitudes toward e-commerce businesses. Questions were designed to examine respondents' attitudes regarding the advantages and disadvantages of e-commerce businesses and were measured using a five point Likert scale ranging from strongly agree (5) to strongly disagree (1). Statements used were taken from the ECOM (1999) study and included advantages such as "Reasonable price", "Easy payment", and "Wide variety of items to select from" (Appendix). Statements regarding disadvantages included "Possibility of leaking

private information", "Possibility of a wrong charge", and "Impossibility of a tangible selection" (Appendix).

Section III sought to determine attributes that affected Internet patronage among Japanese e-commerce businesses. A five point modified Likert scale ranging from very important (5) to very unimportant (1) was used to measure responses. The instrument was originally developed by Miyata (2001) in a study of e-commerce and consumer behavior. Statements included "Security", "Wide variety of goods and services", and "Uniqueness of goods or services" (Appendix).

The last section of the questionnaire collected demographic information of respondents as well as their personal computer environment and Internet access. These characteristics were taken from the literature reviewed.

#### Data Analysis Procedures

After collecting all returned and completed questionnaire, the data was entered into the Statistical Program of Social Science (SPSS). Frequencies and cross tabulations were conducted to analyze the data.

## CHAPTER FOUR

### RESULTS

#### Introduction

Chapter Four presents the results of the study. The collected questionnaire data were analyzed by Statistical Package for Social Sciences (SPSS) 11.5.

#### Demographic Characteristics of Respondents

Of the 150 surveys administered, 112 were returned yielding a 74.6 percent responses rate. Demographic characteristics of respondents are given in Table 1. Over half (57.1%) of the respondents were male and the majority age range was from 21 to 29 years old (78.6%). Further, respondents were equally divided between living inside and outside Japan. Full time workers (43.8%) and students (44.6%) were the two major groups regarding employment status and half (50.0%) of the respondents reported incomes of \$9,999 or less. Furthermore, 99.1 percent of the respondents reported having access to personal computers and almost all (91.1%) had access to the Internet.

Table 2. Demographic Characteristics of the Respondents

<u>Variable</u>	<u>Frequency</u>	<u>Percent</u>
<u>Gender</u>		
Female	48	42.9
Male	64	57.1
<u>Age</u>		
20 years or younger	7	6.3
21-29	88	78.6
30-39	15	13.4
40-49	0	0.0
50-59	2	1.8
60 years or older	0	0.0
<u>Residence</u>		
In Japan	61	54.5
Outside Japan	51	45.5
<u>Employment Status</u>		
Currently unemployed, looking for work	1	0.9
Employed full time	49	43.8
Employed part time	6	5.4
Full time homemaker	5	4.5
Student	50	44.6
Retired	1	0.9
<u>Family Income</u>		
\$9,999 or less	56	50.0
\$10,000-\$19,999	5	4.5
\$20,000-\$34,999	12	10.7
\$35,000-\$49,999	19	17.0
\$50,000-\$64,999	12	10.7
\$65,000-\$79,999	4	3.6
\$80,000 or over	4	3.6
<u>PC environment</u>		
Borrow someone' PC when needed	1	0.9
Use your own PC at home	40	35.7
Use PC for daily work at office (school)	15	13.4
Use PC both at home and office (school)	56	50.0
<u>Internet environment</u>		
Don't have access but can use at office (school)	10	8.9
Have access all the day	102	91.1

## Electronic Commerce Experiences of Respondents

### Electronic Commerce Experiences

Question 1 asked the respondents whether or not they had experience of online purchase in the past year. Eighty-eight (88) respondents that accounted for 78.6 percent had online purchase experience in the past year, and rest of them, 24 respondents that accounted for 21.4 percent did not have online purchase experience in the past year (Table 3).

Table 3. E-Commerce Experiences in the Past Year

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	88	78.6	78.6	78.6
No	24	21.4	21.4	100.0
Total	112	100.0	100.0	

Regarding gender, over three fourths of males (78.1%) and females (79.2%) made online purchases in the past year (Table 4).

Table 4: Cross Tabulation between Experience and Gender

			Gender		Total
			Female	Male	
Experience	Yes	Count	38	50	88
		% within Gender	79.2%	78.1%	78.6%
	No	Count	10	14	24
		% within Gender	20.8%	21.9%	21.4%
Total	Count	48	64	112	
	% within Gender	100.0%	100.0%	100.0%	

Moreover, 77 percent of respondents living in Japan and 80.4 percent of respondents living outside the country had purchased online in the past year (Table 5).

Table 5. Cross Tabulation between Experience and Residence

			Residence		Total
			In Japan	Outside Japan	
Experience	Yes	Count	47	41	88
		% within Residence	77.0%	80.4%	78.6%
	No	Count	14	10	24
		% within Residence	23.0%	19.6%	21.4%
Total	Count	61	51	112	
	% within Residence	100.0%	100.0%	100.0%	

Approximately 90 percent of respondents who had access to personal computers had purchased online, while respondents who had limited use had fewer online purchases (Table 6).



Table 6. Cross Tabulation between Experience and PC Environment

		PC environment				Total
		Borrow	At home	At office (school)	At both home and office (school)	
Experience Yes	Count	1	29	8	50	88
	% within PC environment	100.0%	72.5%	53.3%	89.3%	78.6%
No	Count	0	11	7	6	24
	% within PC environment	.0%	27.5%	46.7%	10.7%	21.4%
Total	Count	1	40	15	56	112
	% within PC environment	100.0%	100.0%	100.0%	100.0%	100.0%

Approximately 81 percent of respondents who had Internet access all day had purchased online, while 50 percent with limited Internet access did (Table 7).

Table 7. Cross Tabulation between Experience and Internet Environment

			Internet environment		Total
			Limited	All the day	
Experience Yes	Count	5	83	88	
	% within Internet environment	50.0%	81.4%	78.6%	
No	Count	5	19	24	
	% within Internet environment	50.0%	18.6%	21.4%	
Total	Count	10	102	112	
	% within Internet environment	100.0%	100.0%	100.0%	

Electronic Commerce Experienced Times

Almost half of respondents (54.5%) made purchase online four or more times in the past year. In fact, almost 39 percent made six or more online purchases (Table 8). Based on research by Seitz (1984), heavy users were defined as those that reported purchasing online four or more times and light users were defined as those that made three or fewer purchases in the past year.

Table 8. Number of Times Experienced Respondents Made Online Purchases

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1time	14	12.5	15.9	15.9
	2times	11	9.8	12.5	28.4
	3times	15	13.4	17.0	45.5
	4times	8	7.1	9.1	54.5
	5times	6	5.4	6.8	61.4
	More than 6times	34	30.4	38.6	100.0
	Total	88	78.6	100.0	
Missing	System	24	21.4		
Total		112	100.0		

Amount Spent

Question 3 was regarding the total amount spent in online purchases in the past year. Almost half (48.9%) of experienced respondents spent 400 dollars or less, while almost 30 percent spent more than 1,000 dollars in the past year (Table 9).

Table 9. Amount Spent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	\$1-\$50	6	5.4	6.8	6.8
	\$51-\$100	13	11.6	14.8	21.6
	\$101-\$200	7	6.3	8.0	29.5
	\$201-\$300	9	8.0	10.2	39.8
	\$301-\$400	8	7.1	9.1	48.9
	\$401-\$500	6	5.4	6.8	55.7
	\$501-\$600	5	4.5	5.7	61.4
	\$601-\$700	1	.9	1.1	62.5
	\$701-\$800	2	1.8	2.3	64.8
	\$801-\$900	2	1.8	2.3	67.0
	\$901-\$1000	3	2.7	3.4	70.5
	\$1001-\$2000	10	8.9	11.4	81.8
	More than \$2000	16	14.3	18.2	100.0
	Total	88	78.6	100.0	
Missing	System	24	21.4		
Total		112	100.0		

Products and Services

Question 4 was regarding products and services respondents purchased online in the past year. "Travel", which was purchased by 53 respondents, and was the top category, followed by "books and music" (16.1%) and "entertainment" (15.3%) (Table 10).

Table 10. Products and Services Respondents Purchased

Products and Services	Frequency	Percent
Travel	53	19.3%
Book, Music	44	16.1%
Entertainment	42	15.3%
PC or related products	25	9.1%
Furniture, Sundries, Hobby	22	8.0%
Other goods	16	5.8%
Clothing, Accessory	16	5.8%
Finance	15	5.5%
Grocery	14	5.1%
Various services	13	4.7%
Gifts	10	3.6%
Automobile	4	1.5%
Real estate	0	0.0%
Total	274	100.0%

Payment Method

The most frequently used payment method online was credit cards (44.7%). Approximately 15 percent reported using "payment at delivery" and 13.8 percent used "transfers through bank in advance" (Table 11).

Table 11. Payment Methods Respondents Used

Payment Method	Frequency	Percent
Credit card	68	44.7%
Payment at delivery	22	14.5%
Transfer through bank in advance	21	13.8%
Payment at Convenience store	17	11.2%
Transfer through bank after delivery	8	5.3%
Debit card	6	3.9%
Check	6	3.9%
Registered mail	4	2.6%
Total	152	100.0%

Intention to Use Electronic Commerce in the Future

In the question 6, respondents were asked if they intend to make purchase through e-commerce in the future. Approximately 94 percent of respondents reported that they would make purchases through e-commerce in the future, while seven respondents, which accounted for 6.3 percent, did not intend to make online purchase in the future (Table 12).

Table 12. Intention to Use E-commerce in the Future

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	105	93.8	93.8	93.8
	No	7	6.3	6.3	100.0
Total		112	100.0	100.0	

### Attitudes Toward Electronic Commerce

#### Advantages of Electronic Commerce

Section II of the questionnaire sought respondents' attitudes toward e-commerce and online purchasing. Results showed that quick delivery was not considered a strong motive (mean=2.96), while the ability to purchase at home (mean=4.57) and at any time (mean=4.50) were rated the strongest advantages for online purchasing (Table 13).

Table 13. Mean Scores of Advantages of E-Commerce

Advanteges of E-commerce	Mean*	Standard Deviation
Purchase at home	4.57	0.768
Purchase any time	4.50	0.697
Accessibility from distant place	4.31	0.911
Wide variety of items to select from	3.88	0.960
Easy payment options	3.57	1.145
Ease to compare and contrast	3.46	1.073
Reasonable price	3.17	0.909
Quick delivery	2.96	0.929

\*1=strongly disagree; 2=somewhat disagree; 3=neither agree nor disagree; 4=somewhat agree; 5=strongly agree

#### Disadvantages of Electronic Commerce

Regarding disadvantage, "impossibility of a tangible selection" (mean=4.42) and "possibility of leaking private information" (mean=4.33) were reported the most by respondents. Further, respondents somewhat disagreed with the statement, "anxiety with the purchasing process" (mean=2.17) as a disadvantage (Table 14).



Table 14. Mean Scores of Disadvantages of E-Commerce

Disadvantages of E-commerce	Mean*	Standard Deviation
Impossibility of a tangible selection	4.42	0.801
Possibility of leaking private information	4.33	0.787
Possibility of a wrong charge	3.65	1.071
Impossibility of bargaining	3.00	1.060
Difficulty in finding the products or services	2.58	0.936
Lack of interesting goods or services	2.31	0.849
Anxiety with the purchasing process	2.17	1.039

\*1=strongly disagree; 2=somewhat disagree; 3=neither agree nor disagree; 4=somewhat agree; 5=strongly agree

#### Attributes that Affect Internet Patronage

The respondents rated "security" (mean=4.60), "confidence of the company or website" (mean=4.47), and "accessibility to information" (mean=4.23) as the most important attributes for online purchasing (Table 15).

Table 15. Mean Scores of Patronage Factors for E-Commerce

Attributes	Mean*	Standard Deviation
Security	4.60	0.677
Confidence of the company or website	4.47	0.759
Accessibility to information	4.23	0.671
Wide variety of products or services	4.12	0.707
Price	4.12	0.888
Ease of transaction	4.09	0.823
Wide variety of payment method	3.86	0.957
Quick delivery	3.79	0.843
Customer service	3.70	0.957
Flexibility of customization	3.38	0.970
Uniqueness of products or services	3.35	0.877
Brand	3.13	0.978

\*1=very unimportant; 2=somewhat unimportant; 3=neither important nor unimportant; 4=somewhat important; 5=very important

CHAPTER FIVE  
CONCLUSIONS AND IMPLICATIONS

Introduction

Included in Chapter Five is a presentation of the conclusions and implications from the study.

Conclusions and Implications

The researcher examined Business-to-Consumer (B2C) Electronic Commerce (E-commerce) patronage behavior among Japanese consumers. Specifically, the researcher sought to determine Japanese consumers' B2C e-commerce purchase experience, their attitudes toward e-commerce, and the attributes that affect Internet patronage behavior. To obtain the primary data, a self-administered questionnaire was conducted. The sample consisted of 150 randomly selected Japanese consumers with 112 usable questionnaires yielding a 74.6 percent response rate.

Over half of the respondents were male and the majority age range was from 21 to 29 years old. Respondents were approximately equally divided between living inside Japan and outside Japan. Furthermore, almost half of the respondents were employed full time and half were students. Further, half of the respondents reported incomes \$9,999 or less. Almost all (99.1%)

respondents had access to personal computers at home and/or office or school, and 91.9 percent of the respondents had access to the Internet all day.

#### Japanese Consumers' Electronic Commerce Purchases

Over three fourths (78.6%) respondents had purchased through e-commerce in the past year. Over half of respondents were considered heavy users with four or more online purchases in the past year. In fact, 38.6 percent of the experienced respondents made online purchase more than six times. On the other hand, 45.5 percent of the experienced respondents made online purchase three times or less. There was a wide difference on experienced times between heavy users and light users.

Almost half of experienced respondents reported spending 400 dollars or less, while one third of the experienced respondents spent more than 1,000 dollars in the past year. In addition to the number of times, there was a wide difference on the amount spent between heavy and light users.

Travel, books and music, and entertainment led the list of the products and services respondents purchased most often. According to the research by METI (2002), the top three categories in their findings were automobiles, real estate, and personal computers. The difference

between the present study and METI's findings is that METI's findings were based on reported sales volume rather than consumer responses. On frequency, the most frequently purchased products and services were relatively inexpensive compared to the top three categories in the METI's result. Clemente (1998) suggested that travel, books and music, and entertainment, are nonperishable goods that have a high relative value and would be purchased online more frequently in the future.

Credit cards were the dominant payment method among e-commerce users. Although credit cards were dominant among payment methods, other methods are also used because of the risk adverse nature of Japanese people (Fujitsu Research Institute, 2002). It can be said that these alternative payment methods would be good to add for Japanese e-commerce businesses.

Almost all online consumers and three fourths of non-users had intention to use e-commerce in the future. Hence, e-commerce is emerging as a shopping vehicle for Japanese consumers.

#### Attitudes toward Electronic Commerce

Results indicated that most respondents considered purchasing at home and at any time advantageous to making purchases online. Given this, Japanese consumers

perceived purchasing online convenient. This finding is consistent with those of ECOM (1999) that found Japanese people used the Internet primarily for convenience.

To attract consumers, Japanese e-commerce businesses should also consider "accessibility from distant place" which was rated highly as an online advantage because Japanese desire to purchase goods from their home country. Or further, Japanese e-commerce businesses can offer products from around the world for consumers to choose from. Moreover, offering wide variety of products or services should also be considered since operational costs are considerably lower than brick and mortar stores in Japan.

On the other hand, disadvantages of e-commerce included the impossibility of tangible selections, the possibility of leaking private information, and the possibility of a wrong charge. Given that consumers cannot touch or feel the products, Japanese e-commerce businesses may consider providing fabric swatches as a sample, more liberal return policies, and intensive product/service information on their website to reduce the perceived disadvantages of this buying method. Moreover, like American consumers, Japanese are concerned about privacy and security. These disadvantages and obstacles

of e-commerce should be considered and improved to ease consumers' minds. For example, to reduce consumers' anxiety about a wrong charge, e-commerce businesses can offer alternative methods such as cash on delivery or allowing consumers to pay at convenience stores.

Attributes that Affect Internet Patronage among Japanese Electronic Commerce Businesses

Result indicated that "security" and "confidence in the company or website" were two of the most important attributes reported by respondents. It can be said that Japanese consumers are concerned about security issues as well as the reputation of the company or website. Given this, Japanese e-commerce businesses should provide not only extensive information about the products and services offered but also detailed information about the company.

Although the research results were applicable only to the population frame, this research offered several additional implications for Japanese e-commerce businesses. First of all, results indicated that 93.8 percent of the respondents and 79.2 percent of the non-experienced respondents intend to make online purchases in the future. This fact shows that e-commerce is emerging in Japan and becoming a purchasing method for consumers. Companies currently involved in or are interested in e-commerce will

need to further develop strategies that capitalize on this window of opportunity.

Second, the most frequently purchased products or services were travel, books and music, and entertainment. Given this, Japanese e-commerce businesses should consider strengthening these and other products and services that are nonperishable and a high relative value. Further, although automobiles and real estate were the top two categories in sales volume (METI, 2002), the survey results indicated that only four respondents purchased from these categories through e-commerce. Because of their inherent high price tag, frequency of purchases was low.

Third, alternative payment methods should be considered. Although credit cards were used most frequently, other payment methods such as payment on delivery, bank transfers, and payments made at convenience stores should be selected as alternative methods. At the same time, Japanese consumers were concerned about security issues such as the possibility of leaking private information and possibility of a wrong charge. Given this, Japanese e-commerce businesses should consider providing such alternative payment methods as payment on delivery and payments at convenience stores to ease consumers'



minds. Offering these alternative methods may attract non-experienced or non-frequent consumers who are afraid of security issues, and enhance trial or more frequent online purchasing.

Fourth, imported products and services should be provided by Japanese e-commerce businesses. Providing wide variety of products or services is one of the e-commerce features that brick and mortar stores cannot achieve. This is the way that e-commerce businesses can differentiate themselves from traditional stores.

Finally, when e-commerce businesses offer products or services, sufficient information regarding products or services should be provided. As results indicated, Japanese consumers think accessibility to information is an important purchase motive for online purchase. E-commerce companies should provide not only the information regarding products or services but also information on related merchandise as well as company information so that consumers can compare and contrast alternatives and purchase online with confidence.

APPENDIX  
QUESTIONNAIRE



4. What kinds of products and services have you purchased through the Internet in the past 1 year? (Circle all that apply)
- 1- PC or related products (PC, Related equipment, Software etc.)
  - 2- Travel (Ticket for airplane, train, and bus, Accommodation, Reservation for package tour etc.)
  - 3- Entertainment (Ticket for an event, software for game, DVD, Video etc.)
  - 4- Book, Music (Book, Electronic book, CD, Music on Internet etc.)
  - 5- Clothing, Accessory (Clothing, Shoes, Bag, Accessory etc.)
  - 6- Gifts (Flower, Gift for events etc.)
  - 7- Grocery (Food, Beverage, Alcohol etc.)
  - 8- Furniture, Sundries, Hobby (Stationary, Sundries, General goods, Toy, Goods for hobby etc.)
  - 9- Automobile (Automobile, Motorcycle, Used one, New one, Car accessory etc.)
  - 10- Real estate (Apartment, House etc.)
  - 11- Other goods (Medicine, Cosmetics, Toiletry, Electrical appliance, AV etc.)
  - 12- Finance (Transaction with bank, Security transaction, Insurance etc.)
  - 13- Various services (Education, Medical treatment, Service related to life, Internet etc.)
5. What payment method have you used most often when you have purchased through the Internet in the past year? (Circle all that apply)
- |   |                                 |
|---|---------------------------------|
| 1- Transfer through bank in advance     | 5- Credit card                  |
| 2- Transfer through bank after delivery | 6- Debit card                   |
| 3- Registered mail                      | 7- Payment at delivery          |
| 4- Check                                | 8- Payment at Convenience store |
6. Do you intend to purchase any goods or services through the Internet in the future?
- 1- Yes
  - 2- No

## Section II

7. The following is a list of statements concerning ADVANTAGES of E-commerce. Please read the statements carefully and circle the response that most closely represents your opinion.

- 1- Strongly disagree
  - 2- Somewhat disagree
  - 3- Neither agree nor disagree
  - 4- Somewhat agree
  - 5- Strongly agree
- |  |   |   |   |   |   |
|--|---|---|---|---|---|
| A) Wide variety of items to select from                      | 1 | 2 | 3 | 4 | 5 |
| B) Ease to compare and contrast between products or services | 1 | 2 | 3 | 4 | 5 |
| C) Reasonable Price  | 1 | 2 | 3 | 4 | 5 |
| D) Easy payment options                                      | 1 | 2 | 3 | 4 | 5 |
| E) Accessibility to products and services from distant place | 1 | 2 | 3 | 4 | 5 |
| F) Quick delivery  | 1 | 2 | 3 | 4 | 5 |
| G) Purchase at home  | 1 | 2 | 3 | 4 | 5 |
| H) Purchase any time   | 1 | 2 | 3 | 4 | 5 |

8. The following is a list of statements concerning DISADVANTAGES of E-commerce. Please read the statements carefully and circle the responses that most closely represent your opinion.

- 1- Strongly disagree
  - 2- Somewhat disagree
  - 3- Neither agree nor disagree
  - 4- Somewhat agree
  - 5- Strongly agree
- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| A) Possibility of leaking private information     | 1 | 2 | 3 | 4 | 5 |
| B) Possibility of a wrong charge                  | 1 | 2 | 3 | 4 | 5 |
| C) Impossibility of a tangible selection          | 1 | 2 | 3 | 4 | 5 |
| D) Anxiety with the purchasing process            | 1 | 2 | 3 | 4 | 5 |
| E) Lack of interesting goods or services          | 1 | 2 | 3 | 4 | 5 |
| F) Difficulty in finding the products or services | 1 | 2 | 3 | 4 | 5 |
| G) Impossibility of bargaining                    | 1 | 2 | 3 | 4 | 5 |

### Section III

9. When you purchase products or services through the Internet, how IMPORTANT are each of following factors? Please read the statements carefully and circle the response that most closely represents your opinion.

- 1- Very unimportant
  - 2- Somewhat unimportant
  - 3- Neither important nor unimportant
  - 4- Somewhat important
  - 5- Very important
- |  |   |   |   |   |   |
|--|---|---|---|---|---|
| A) Security  | 1 | 2 | 3 | 4 | 5 |
| B) Wide variety of goods or service                            | 1 | 2 | 3 | 4 | 5 |
| C) Uniqueness of goods or service                              | 1 | 2 | 3 | 4 | 5 |
| D) Flexibility of customization                                | 1 | 2 | 3 | 4 | 5 |
| E) Customer service  | 1 | 2 | 3 | 4 | 5 |
| F) Price   | 1 | 2 | 3 | 4 | 5 |
| G) Brand   | 1 | 2 | 3 | 4 | 5 |
| H) Confidence of the company or website                        | 1 | 2 | 3 | 4 | 5 |
| I) Accessibility to information regarding products or services | 1 | 2 | 3 | 4 | 5 |
| J) Quick delivery  | 1 | 2 | 3 | 4 | 5 |
| K) Wide variety of payment method                              | 1 | 2 | 3 | 4 | 5 |
| L) Ease of transaction   | 1 | 2 | 3 | 4 | 5 |

#### **Section IV**

Please circle the number that represents your response.

10. Please indicate your gender

- 1- Female                      2- Male

11. Please indicate your age range

- 1- 20 years or younger    3- 30-39 years of age    5- 50-59 years of age  
2- 21-29 years of age    4- 40-49 years of age    6- 60 years or older

12. Please indicate where you currently live

- 1- In Japan                  2- Outside Japan

13. Please indicate your present employment status

- 1- Currently unemployed, looking for work    4- Full time homemaker  
2- Employed full time                              5- Student  
3- Employed part time                              6- Retired

14. Please indicate your PC environment

- 1- Borrow someone's PC when needed  
2- Use your own PC at home  
3- Use PC for daily work at office (school)  
4- Use PC both at home and office (school)

15. Please indicate your Internet environment

- 1- Don't have access to the Internet, but can use at office (school)  
2- Have access to the Internet all the day

16. Please indicate your family income range

- 1- \$9,999 or less                      4- \$35,000-49,999    7- 80,000 and over  
2- \$10,000-\$19,999                      5- \$50,000-64,999  
3- \$20,000-34,999                      6- \$65,000-79,999

**Thank you**

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