Trends in Electronic Commerce Among Selected Companies in Metro Manila, Philippines

Review of Integrative Business & Economics Research

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ABSTRACT

Many companies in Metro Manila are facing business pressures right now, and one of their organizational responses is by adapting E-Commerce. The objective of the study is to identify and describe the types of E-Commerce used by the selected top corporations in Metro Manila, and determine their perceived advantages and disadvantages of using it. This study can increase the awareness of information society regarding the trends in E-Commerce. The research design used was descriptive. The data gathered from the respondent companies through survey and interview will be used for discussion and analysis.

Based on the data gathered from 50 company respondents, the proponent found out that majority (84%) of E-Commerce is Business-to-business (B2B). Next highest (48%) is Business to Consumer (B2C). Rank number three (40%) mentioned that they are adapting Business to Employee (B2E) and E-government (EGOV). While 30% of the respondents are using Consumer to Consumer (C2C), only 24 respondents mentioned Mobile Commerce (MCOMM).

Based on proponent's observation, E-Commerce is divided into different major types, it was applied by the companies depending on their needs and usage, and it offers many benefits to organizations and consumers. The result shows that perceived advantages were definitely more than the perceived disadvantages.

Keywords: E-Commerce, E-Business, B2B, B2C

I. INTRODUCTION

1.1 Background of the Study

Electronic Commerce (EC or E-commerce) describes the process of buying, selling, transferring, or exchanging products, services, or information via computer

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networks, including the Internet. **E-business** is a somewhat broader concept. In addition to the buying and selling of goods and services, e-business also refers to servicing customers, collaborating with business partners, and performing electronic transactions within an organization. However, because e-commerce and e-business are so similar, we often use the two terms interchangeably. E Commerce benefits organizations by making national and international markets more accessible and by lowering the cost of processing, distributing, and retrieving information. Customer benefit by being able to access a vast numbers of product and services, around the clock. The major benefit to society is the ability to easily and conveniently deliver information, services and products to people in cities, rural areas, and developing countries (Rainer and Turban, 2009).

In the proponent's former research study entitled "Business Pressures, Organizational Response and IT Support among the Top Corporations in Metro Manila", it discussed the business pressures confronting the top 100 corporations in Metro Manila namely in the following sectors: Service, Manufacturing and Merchandising Corporations, and how these companies respond to their business pressure. The said research study also mentioned that Rainier and Turban (2009) mentioned that there were three types of business pressures that the companies are facing now: Market Pressure, Technology Pressure, and Societal / Political / Legal Pressure. To be more specific, these are Global Economy and Strong Competition, Changing Nature of the Workforce, Powerful Customers, Need for Real Time Operation, Technological Innovation and Obsolescence, Information Overload, Social Responsibility, Compliance with Government Regulations and Deregulations, Protection against Terrorist Attacks, Ethical Issues, and etc. And some of the organizational responses are Strategic Systems, Customer Focus and Service, Continuous Improvement Efforts, Business Process Reengineering, Business Alliances, and etc. Based on the interview and survey result of the said previous research study of the proponent, there were 9.3% respondent who mentioned E-Business and E-Commerce.

Many companies nowadays adapted E-Commerce, ranging from electronic transfer of funds between buyers and suppliers, to Internet-based marketing, to intranet- and extranet- based information networks for both inter- and intra- organizational support (Rainer and Turban, 2009).

1.2 Rationale of the Study

The proponent’s interest on the topic of E-Commerce when the proponent embarked on teaching COMP1BU and COMP2BU (Computer Application for Business Management Students), ENTEMIS (Management Information System for Entrepreneurship), SYANDES (System Analysis and Design), IS Planning and MISBUSI (Management Information System for Business Management Students) for undergraduate of the Decision Sciences and Innovation Department – De La Salle University - Manila. And besides, the undergraduate degree of proponent was Computer Science specialized in Software Technology. Lastly, the proponent has the interest to look into the types of E-Commerce encountered by different companies, it is worth knowing because we are

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now living in Information Age, all the businesses in Manila are very competitive and challenging, and in able to compete in marketplace, all businesses should start adapting the business strategy of doing their business on-line, digitally or electronically.

1.3 Statement of the Problem

What are the types of E-Commerce used by the selected top corporations in Metro Manila, Philippines ? And what is/are their perceived advantages and disadvantages of adapting it ?

1.4 Objectives of the Study

The objective of the study is to identify and describe the types of E-Commerce used by the selected top corporations in Metro Manila, Philippines, and determine their perceived advantages and disadvantages of using each types of E-Commerce.

1.5 Significance of the Study

The result of the study will benefits the following :

- Faculty of Decision Sciences and Innovation Department and Computer Science – De La Salle University Manila

This will give the faculty teaching COMP1BU and COMP2BU (Computer Application for Business Management Students), ENTEMIS (Entrepreneurship Management Information System), MISBUSI (MIS for Business Students), SYANDES (System Analysis and Design) and ECOMMER (E-Commerce) an idea on what specific topic needs to include or discuss in class lecture, so the students would become aware of the trends in E-Commerce in Metro Manila, and its real application.

- Different corporations in Metro Manila, Philippines

To give them feedback on how different corporations in Metro Manila applying E-Commerce for their daily business transactions, this would also give them idea on how to further improve in the utilization of their on-line business transaction which can help them promote and facilitate their business operations, streamlined their business processes and enhanced the way conduct their business transaction. In addition, this will also help the realized the importance of E-business.

1.6 Scope and Limitation

The company respondents focused on this study will be limited to 50 top corporations in Metro Manila, Philippines.

The data gathering was assisted by proponent' students in Entrepreneurship Information System class (1st term AY 2010-2011), and it was limited to 100 top corporations based on their gross revenue in Metro Manila, Philippines which was stated

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in Business World Magazines published early 2010. Business World Top 1000 Corporations in the Philippines is published annually by Business World Publishing Corporation, with editorial offices at 95 Balete Drive Extension, New Manila, Quezon City, Metro Manila, Philippines.

At first, the limitation of the study was limited to top 100 corporations based on their gross revenue which was stated in Business World magazines, but unfortunately, not all the 100 corporations responded. Some of them are not willing to be surveyed nor interviewed. Out of 100, only 50 corporations responded. In addition, only these 50 companies were accessible and located in Metro Manila. And these are composed of 22 service companies, 10 manufacturing companies and 18 merchandising companies.

The respondent also had a hard time to assess the data gathered from the companies. The data gathered was presented in narrative explanation format, this give the proponent a hard time in coding the data. Another limitation of the study was that there are some important details and information about the company on how they adapted E-Commerce were not mentioned or discussed clearly by the interviewee respondent of the corporation. And many companies also claimed that these information are kept highly confidential by their companies.

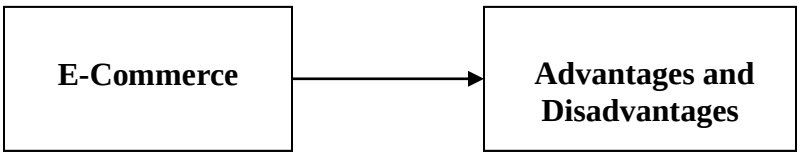
II. FRAMEWORK

2.1 Conceptual Framework

The conceptual framework of the study is based on (or adopted from) R. Kelly Rainer Jr. and Efraim Turban (2009) which states the following :

E-Commerce can be conducted on the Web and on other networks. It is divided into the following major types : business to consumer, business to business, consumer to consumer, business to employee, and government to citizen. E-commerce offers many benefits to organizations, consumer, and society. Each types of E-Commerce has its own advantages and disadvantages (please see figure 1).

Figure 1 : Schematic Diagram of the Conceptual Framework



2.2 Operational Framework

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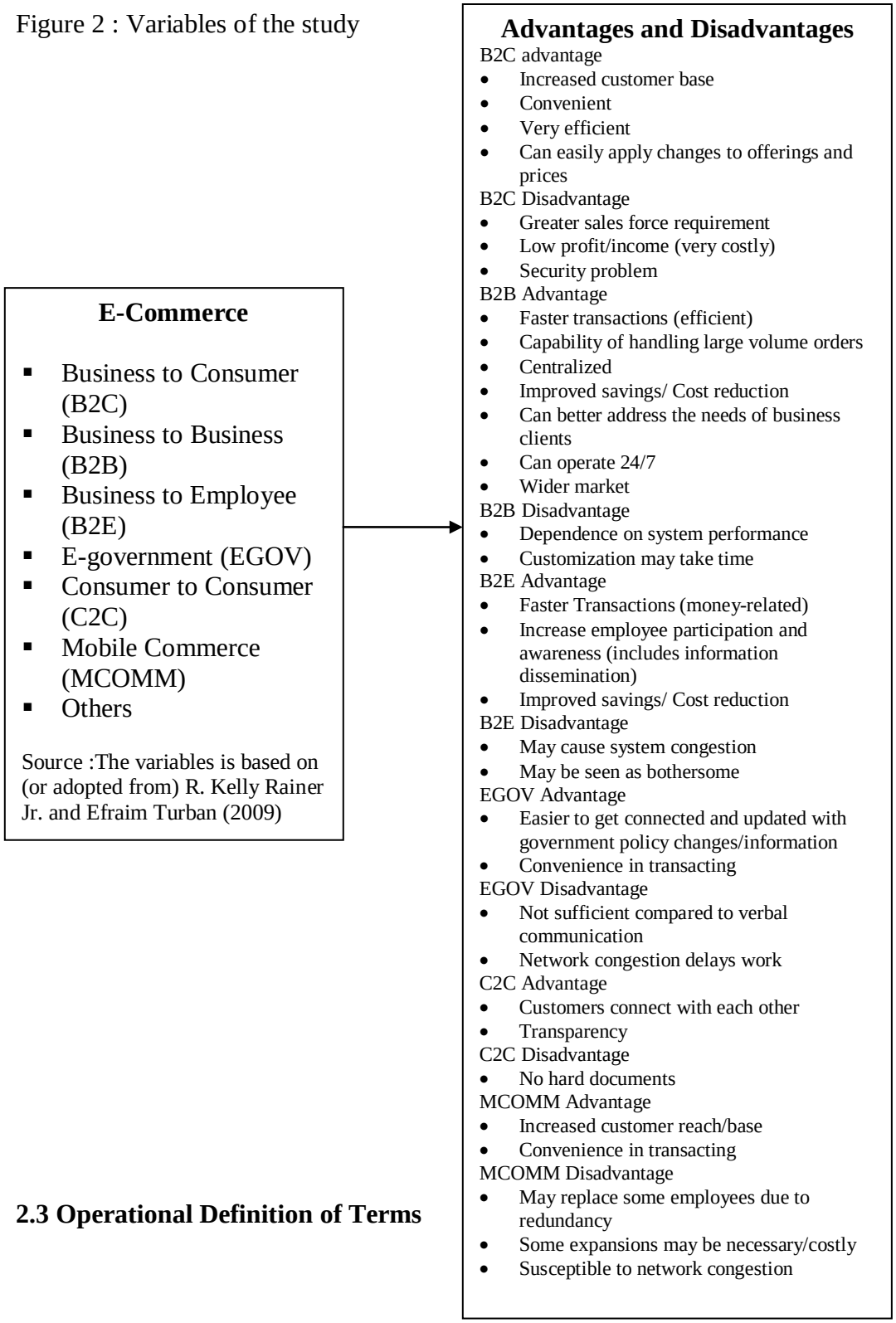
Adopted from the Conceptual Framework of R. Kelly Rainer Jr. and Efraim Turban (2009), the perceived advantages and disadvantages of each types of E-Commerce by selected top corporations in Metro Manila will serve as the variables of this study in terms of :

Figure 2 : Variables of the study



2.3 Operational Definition of Terms

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The operational definition of terms is based on (or adopted from) R. Kelly Rainer Jr. and Efraim Turban (2009) which states the following :

- *Business-to-business (B2B) – both the sellers and the buyers are business organizations.*
- *Business-to-consumer (B2C) – the sellers are organizations, and the buyers are individuals*
- *Consumer-to-consumer (C2C) – an individual sells products or services to other individuals*
- *Business-to-employee (B2E) – an organization uses E-Commerce internally to provide information and service to its employees.*
- *Electronic Commerce (E-Commerce) – the process of buying, selling, transferring, or exchanging products, services or information via computer networks, including the Internet.*
- *E-government – is the use of Internet Technology in general and e-commerce in particular to deliver information and public services to citizens (called government-to-citizen or G2C E-Commerce) and business partners and suppliers (called government-to-business or G2B EC).*
- *Mobile commerce (m-commerce) – refers to e-commerce that is conducted entirely in a wireless environment.*

III. RESEARCH METHODOLOGY

The research methodology used in this research study was same with the proponent's previous research study (from Ong, 2009) entitled "Computer Crimes Encountered among the Selected Companies in Metro Manila, Philippines".

3.1 Research Design

The research design used was descriptive. The data gathered (survey and interview results) from the respondent companies will used to identify and describe the E-Commerce adopted by the selected top corporations in Metro Manila, Philippines. The study will also look into the perceived advantages and disadvantages considered by the 50 corporations in Metro Manila.

Among the 100 list of corporations, only 50 companies responded. 22 companies (or 44%) were Service companies which includes oil refineries, electric distribution, wireless service, banking, power service, port management, media, financial institution, utility, real estate, telecommunications, transportation, infrastructure, water, call center, and insurance companies. 10 companies (or 20%) responded were Manufacturing companies which includes food, automotive, agriculture, beverage and beers, pharmaceutical, pediatric nutrition, cement, packaging companies. And 18 companies (or 36 %) were Merchandising companies which includes shopping and retail, supermarket, warehousing, beauty products, LPG and Petroleum companies.

3.2 Sampling Plan

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The secondary data collected during 1st term Academic Year 2010-2011 from the corporation interviewed by ENTEMIS (Entrepreneurship Management Information System) students as the basis of data for this research study.

3.3 Method of Data Analysis

Primary data was tabulated in a data set, and the data was analyzed using the frequency and percentage distribution. Since the data gathered presented in narrative paragraph form, content analysis will be used by the proponent in coding the data. And the data was presented also in frequency distribution table format and context narrative discussion.

IV. RESEARCH FINDINGS

Based from the Conceptual Framework adapted by the proponents :

The purpose of using the conceptual framework stated in the previous section is to identify and describe the types of E-Commerce adopted by the selected top corporations in Metro Manila, Philippines. This would also describe the social context and corporate culture of the companies studied – the values and beliefs that determine what is admissible and possible within the culture of their corporations involved (Ong, 2009).

TYPES OF E-COMMERCE ADAPTED BY THE TOP CORPORATIONS

Table 1 : Frequency and percentage distribution results with regards to the types of E-Commerce that the company adapted

	Frequency (n = 50)	%
▪ Business to Consumer (B2C)	24	48 %
• Business to Business (B2B)	42	84 %
▪ Business to Employee (B2E)	20	40 %
▪ E-government (EGOV)	20	40 %
▪ Consumer to Consumer (C2C)	15	30 %
▪ Mobile Commerce (MCOMM)	12	24 %

In table 1, it shows that 42 out of 50 companies (or 84 %) mentioned that they are using Business to Business (B2B) E-Commerce, where both the buyers and sellers are companies or business organizations. Based on the survey result, majority of the companies are this type of E-Commerce.

Next highest, 24 out of 50 companies (or 48 %) mentioned that they are adapting Business to Consumer (B2C) E-Commerce. They stated that they are the seller, and their buyers are individuals.

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Rank number three, 20 out of 50 respondents (or 40 %) mentioned Business to Employee (B2E) and E-government (EGOV). Company uses E-Commerce internally to provide services to its employees, and for information dissemination. Some company mentioned that their employees were taking some on-line training. While government uses E-government (also called Government to Citizen E-Commerce) to provide useful information or news update to citizens. They often used this to provide public services to people. They conducting business transaction with citizens, and because of using this makes them effective and efficient.

On the other hand, 15 out of 50 respondents (or 30 %) mentioned that they are adapting Consumer to Consumer (C2C). The companies states that most of the time they conduct C2C on the Internet are classified ads. Some companies also mentioned that they conduct C2C for auctions.

And only 12 out of 50 companies (or 24 %) mentioned Mobile Commerce (MCOMM). The companies conducted business in a wireless environment They used cellular phones to shop over the Internet.

ADVANTAGES AND DISADVANTAGES ENCOUNTERED BY THE TOP CORPORATIONS FOR EACH TYPE OF E-COMMERCE

Table 2 : Frequency and percentage distribution results with regards to the perceived advantages by the companies using B2C

	Frequency	%
B2C advantage (n=24)		
• Increased customer based	3	12.50 %
• Convenient	1	4.17 %
• Very efficient	3	12.50 %
• Can easily apply changes to offerings and prices	1	4.17 %

In Table 2, there are 3 out of 24 company respondents (or 12.50%) mentioned that their perceived advantages of using B2C were increased customer based and very efficient. While 1 out of 24 respondents (or 4.17%) mentioned convenient and can easily apply changes to offerings and prices.

Table 3 : Frequency and percentage distribution results with regards to the perceived disadvantages by the companies using B2C

	Frequency	%
B2C disadvantage (n=24)		
• Greater sales force requirement	1	4.17 %
• Low profit Income	1	4.17 %
• Security Problem	1	4.17 %

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In Table 3, 1 out of 24 respondents (or 5.17%) mentioned that their perceived disadvantages of using B2C were greater sales force requirement, low profit / income or very costly, and security problem.

Table 4 : Frequency and percentage distribution results with regards to the perceived advantages by the companies using B2B

	Frequency	%
B2B advantage (n=42)		
• Faster transactions	8	19.05 %
• Capability of handling large volume orders	3	7.14 %
• Centralized	1	2.38 %
• Improved savings/cost reduction	3	7.14 %
• Can better address the needs of business clients	1	2.38 %
• Can operate 24/7	1	2.38 %
• Wider market	1	2.38 %

In Table 4, 8 out of 42 company respondents (or 19.05%) mentioned that their perceived advantages of using B2B, they have faster transactions. 3 out of 42 respondents (or 7.14%) mentioned that they improved savings and reduce their cost, and they have capability of handling large volume orders. 1 out of 42 respondents (or 2.38%) mentioned that they have wider market, can operate 24/7, can better address the needs of business clients and centralized.

Table 5 : Frequency and percentage distribution results with regards to the perceived disadvantages by the companies using B2C

	Frequency	%
B2B disadvantage (n=42)		
• Dependence on system performance	2	4.76 %
• Customization may take time	1	2.38 %

In table 5, 2 out of 42 respondents (or 4.76%) mentioned that their perceived disadvantage of using B2C was dependence on system performance, and 1 out of 42 respondents (or 2.38%) mentioned that customization may take time.

Table 6 : Frequency and percentage distribution results with regards to the perceived advantages by the companies using B2E

	Frequency	%
B2E advantage (n=20)		
• Faster transactions	4	20 %
• Increase employee participation and awareness	4	20 %
• Improved savings/cost reduction	2	10 %

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In table 6, 4 out of 20 company respondents (or 20%) mentioned that their perceived advantages of using B2E, they were able to have faster transactions and also increased the awareness and participation of their company employees. Company employees can also buy event tickets and travel packages on the corporate intranet. Some companies mentioned that they even buy insurance using B2E. On the other hand, many companies mentioned that they have electronic shops to sell their products to their employees at a special price or lower price. 2 out of 20 company respondents (or 10%) mentioned that they improved savings and cost reduction.

Table 7 : Frequency and percentage distribution results with regards to the perceived disadvantages by the companies using B2E

	Frequency	%
B2E disadvantage (n=20)		
• May cause system congestion	1	5 %
• May be seen as bothersome	1	5 %

In table 7, 1 out of 20 respondents (or 5 %) mentioned that their perceived disadvantage using B2E were it may cause system congestion and may be seen as bothersome.

Table 8 : Frequency and percentage distribution results with regards to the perceived advantages by the companies using EGOV

	Frequency	%
EGOV advantage (n=20)		
• Easier to get connected and updated with governmental policy changes/information	3	15 %
• Convenience in transacting	2	10 %

In table 8, 3 out of 20 respondents (or 15%) mentioned that their perceived advantage using EGOV is easier to get connected and updated with governmental policy changes / information. While 2 out of 20 respondents (or 10%) mentioned its convenience in transaction. These companies mentioned that government transfer benefits, such as SSS and pensions payment, directly to their employees' bank accounts.

Table 9 : Frequency and percentage distribution results with regards to the perceived disadvantages by the companies using EGOV

	Frequency	%
EGOV disadvantage (n=20)		
• Not sufficient compared to verbal communication	1	5 %
• Network congestion delays work	1	5 %

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In table 9, it shows that only 1 out of 20 respondents (or 5 %) mentioned that their perceived disadvantages of using EGOV are as follows : not sufficient compared to verbal communication and network congestion which delays work.

Table 10 : Frequency and percentage distribution results with regards to the perceived advantages by the companies using C2C

	Frequency	%
C2C advantage (n=15)		
• Customers connect with each other	1	6.67 %
• Transparency	1	6.67 %

In table 10, 1 out of 15 respondents (or 6.67%) mentioned that their perceived advantages of using C2C is transparency and customer easy to connect with each other. Many companies mentioned that the on-line classified ads usually have more advantages over the traditional types of classified ads, because on-line classified ads attract audience from different countries and globally. More audience both in local and international definitely gave more advantages to the companies, it increases the company sale revenues, and attract more potential buyers.

Table 11 : Frequency and percentage distribution results with regards to perceived disadvantages by the companies using C2C

	Frequency	%
C2C disadvantage (n=15)		
• No hard documents	1	6.67 %

In table 11, only 1 out of 15 (or 6.67%) perceived that disadvantage of using C2C is no hard documents.

Table 12 : Frequency and percentage distribution results with regards to perceived advantages by the companies using MCOMM

	Frequency	%
MCOMM advantage (n=12)		
• Increased customer reach/base	2	16.67 %
• Convenience in transacting	2	16.67 %

In table 12, 2 out of 12 (or 16.67 %) respondents perceived that advantages of using MCOMM are convenience in transacting and increased customer reach/base.

Table 13 : Frequency and percentage distribution results with regards to perceived disadvantages by the companies using MCOMM

	Frequency	%
MCOMM disadvantage (n=12)		
• May replace some employees due to redundancy	1	8.33 %
• Some expansions may be	1	8.33 %

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necessary/costly		
• Susceptible to network congestion	1	8.33 %

In table 13, only 1 out of 12 respondents perceived the disadvantages of using MCOMM are it may replace some employees due to redundancy, some expansions may necessary/costly, and susceptible to network congestion.

V. CONCLUSION / OBSERVATION

The proponent embarked on this study is in order to determine the types of E-Commerce adapted by the selected companies in Metro Manila, and list down their perceived advantages and disadvantages based on the surveyed and interviewed from 50 corporations, and to disseminate them in the academic and business community.

The data gathered (survey and interview results) from the 50 respondent companies in Metro Manila namely in the following sectors: Service, Manufacturing and Merchandising Corporations. Based on the surveyed and interviewed, the proponent found out that majority of E-Commerce (84%) volume is Business-to-business (B2B). Next highest or rank number 2 (48%) mentioned that they are adapting Business to Consumer (B2C) E-Commerce. Rank number three (40%) mentioned that they are adapting Business to Employee (B2E) and E-government (EGOV). While 30% of the respondents are using Consumer to Consumer (C2C). And only 24 respondent mentioned Mobile Commerce (MCOMM).

Based on proponent's observation, E-Commerce is divided into different major types, it was applied by the top corporations in Metro Manila, and it offers many benefits and advantages to companies and consumers, but also, it has some limitation. The types of E-Commerce adapted by the company depends really on their needs and usage. The top 100 corporations in Metro Manila has its own perceived advantages and disadvantages. And based on the results, perceived advantages is definitely more than perceived disadvantages.

The proponent would like to quote the statement of Rainer and Turban (2009) for recommendation that : "B2C (e-tailing) can be pure or part of a clicks-and-mortar organization. Direct marketing is done via solo storefronts, in malls, through electronic catalogs, or by using electronic auctions. The leading online B2C service industries are banking, securities trading, job markets, travel, and real estate. The major B2B application are selling from catalogs and by forward auctions (the sell-side marketplace), and trading in electronic exchanges and hub. Electronic Commerce can also be done between consumers (C2C) but should be undertaken with caution. Auctions are the most popular C2C mechanism. C2C also can be done by use of online classified ads. B2E provides services to employees, typically over the company's intranet. G2C takes place between government and citizens, making government operations more effective and efficient."

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