The coordination of
E-commerce and Logistics

A case study of Amazon.com

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Yingli Li & Ruoxi Fan
# CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. INTRODUCTION</td>
<td>3</td>
</tr>
<tr>
<td>1.1 BACKGROUND</td>
<td>6</td>
</tr>
<tr>
<td>1.2 WHY WE CHOOSE AMAZON.COM?</td>
<td>6</td>
</tr>
<tr>
<td>1.3 PURPOSE</td>
<td>7</td>
</tr>
<tr>
<td>1.4 OUTLINE</td>
<td>8</td>
</tr>
<tr>
<td>2. METHODOLOGY</td>
<td>8</td>
</tr>
<tr>
<td>2.1 COMMON RESEARCH APPROACH</td>
<td>8</td>
</tr>
<tr>
<td>2.1.1 Quantitative Research</td>
<td>8</td>
</tr>
<tr>
<td>2.1.2 Qualitative Research</td>
<td>9</td>
</tr>
<tr>
<td>2.2 RESEARCH METHODS</td>
<td>11</td>
</tr>
<tr>
<td>2.2.1 Case Study</td>
<td>11</td>
</tr>
<tr>
<td>2.2.2 Deductive and Inductive approach</td>
<td>11</td>
</tr>
<tr>
<td>2.2.3 review</td>
<td>12</td>
</tr>
<tr>
<td>2.3 DATA COLLECTION</td>
<td>13</td>
</tr>
<tr>
<td>2.3.1 Primary information (interview)</td>
<td>13</td>
</tr>
<tr>
<td>2.3.2 Secondary information</td>
<td>14</td>
</tr>
<tr>
<td>2.4 RELIABILITY AND VALIDITY „LIMITATION</td>
<td>15</td>
</tr>
<tr>
<td>3. THEORETICAL FRAMEWORK</td>
<td>16</td>
</tr>
<tr>
<td>3.1 CONCEPTS</td>
<td>16</td>
</tr>
<tr>
<td>3.1.1 E-commerce</td>
<td>17</td>
</tr>
<tr>
<td>3.1.2 B2C e-commerce</td>
<td>17</td>
</tr>
<tr>
<td>3.1.3 Logistics</td>
<td>18</td>
</tr>
<tr>
<td>3.1.4 Third-party-logistics</td>
<td>19</td>
</tr>
<tr>
<td>3.2 COORDINATION MECHANISM</td>
<td>19</td>
</tr>
<tr>
<td>3.2.1 The development of B2C e-commerce needs logistics to support</td>
<td>20</td>
</tr>
<tr>
<td>3.2.2 The logistics system influenced by the development of B2C companies</td>
<td>21</td>
</tr>
<tr>
<td>3.3 THE STRENGTHS OF LOGISTIC</td>
<td>23</td>
</tr>
<tr>
<td>3.3.1 The strengths of third party logistics</td>
<td>24</td>
</tr>
<tr>
<td>3.3.2 The strengths of self-logistic in developing e-commerce</td>
<td>25</td>
</tr>
<tr>
<td>3.4 THE SHORTCOMINGS OF LOGISTICS IN DEVELOPING E-COMMERCE</td>
<td>25</td>
</tr>
<tr>
<td>3.4.1 The shortcomings of third-party-logistics in developing e-commerce</td>
<td>26</td>
</tr>
<tr>
<td>3.4.2 The shortcoming of self-logistics in developing e-commerce</td>
<td>27</td>
</tr>
<tr>
<td>3.5 SUMMARY OF THE MECHANISM</td>
<td>28</td>
</tr>
<tr>
<td>4. FINDINGS</td>
<td>29</td>
</tr>
<tr>
<td>4.1 THE SITUATION OF AMAZON.COM IN CHINA ONE-COMMERCE</td>
<td>29</td>
</tr>
<tr>
<td>4.2 LOGISTICS SYSTEM USED IN AMAZON.COM</td>
<td>31</td>
</tr>
<tr>
<td>4.2.1 Third-party logistics</td>
<td>31</td>
</tr>
<tr>
<td>4.2.2 Own logistics</td>
<td>32</td>
</tr>
<tr>
<td>4.2.3 Inventory</td>
<td>32</td>
</tr>
<tr>
<td>4.2.4 Delivery to customer</td>
<td>34</td>
</tr>
<tr>
<td>4.2.5 Return problems</td>
<td>35</td>
</tr>
<tr>
<td>4.3 COMPETITORS OF AMAZON.COM</td>
<td>36</td>
</tr>
</tbody>
</table>
5. ANALYSIS AND DISCUSSION ..................................................................................................................... - 36 -

5.1 WHAT ARE THE COORDINATION MECHANISM BETWEEN E-COMMERCE AND LOGISTICS IN AMAZON? ................. - 36 -
   5.1.1 how does the logistics help developing Amazon's e-commerce ................................................ - 37 -
   5.1.2 how does the e-commerce helps developing logistics system? .................................................. - 39 -

5.2 WHAT ARE THE STRENGTHS AND SHORTCOMINGS OF LOGISTICS IN DEVELOPING E-COMMERCE? ......................... - 40 -
   5.2.1 what are the strengths of logistics in developing Amazon's e-commerce? .............................. - 40 -
   5.2.2 what are the shortcomings of logistics for developing Amazon's e-commerce? .................. - 41 -

6. CONCLUSION ........................................................................................................................................ - 42 -

   6.1 SUMMARY ........................................................................................................................................ - 42 -
   6.2 PRACTICES IMPLICATIONS AND FUTURE STUDIES .................................................................................. - 43 -

7. REFERENCES ........................................................................................................................................... - 44 -

APPENDIX ................................................................................................................................................ - 49 -
Abstract

With the further promotion and application of e-commerce, logistics is becoming necessary. Logistics and the importance of e-commerce are more and more getting people’s attention, but what is the relationship between e-commerce and logistics still needs to be explored.

The purposes of thesis are to research the relationship between e-commerce and logistics in B2C (business to consumer) companies. The aims of the thesis are threefold. Firstly, describe the coordination mechanism between e-commerce and logistics in general and particularly in Amazon.com. Secondly, find out the strengths and shortcoming of logistic when the company is developing e-commerce in general. Thirdly, In general, we focus on finding out the way to coordinate logistic in developing e-commerce, and how the logistic helps companies to develop e-commerce.

The qualitative research method is used in our thesis in order to fulfill our purposes. It is a case study of Amazon China as the study subject. We analyzed the data, collected from the interview and documentation. There are certain limitations for our thesis: the interviewees were working, and they only had one hour for us to make the interview. Because of the time limitation, we could not get satisfactory and detailed information from them. So we collected some secondary data in order to support our thesis. In order to get much specific data i.e. more logistics information about logistics in Amazon, we phoned the customer service and in order to get some detail data.

After the research, we found if e-commerce and logistics go hand in hand and converge; they create a unique mechanism which can help the business and market.

Keywords: e-commerce, logistics, coordination development, strengths, shortcomings, china, Amazon.
1. INTRODUCTION

This section we will deal with experience, purpose of this paper. In addition, the introduction of Amazon.com will be presented. Also provide an overview of the research problem and justification for the study about a particular subject.

1.1 BACKGROUND

E-commerce is one of the buzzwords in the recent years. Laudon & Traver (2008) state, E-COMMERCE-commerce technology, is different and more influential from other technologies that we have seen in the past the century. E-commerce technology develops quickly with the development of Internet and people can enjoy convenient life by using e-commerce.

But today many of the new e-commerce companies have failed or are struggling for economic survival, and the failure for many companies in e-commerce can be in part accounted by the neglecting of logistics (Delfmann, et al, 2002). E-COMMERCE-commerce or electronic commerce is the buying, selling, and exchanging of goods and services over computer networks through which transactions or terms of sale are performed electronically, mentioned by Rosen (2002). Electronic commerce especially B2C (business to consumer) design now is the most commonly discussed type of e-commerce which sells to individual consumers online.

How to deliver the commodity to consumers is an important issue and the logistics should not be neglected, and the prominent role for e-commerce companies is especially in the logistics segment. According to electronic commerce and logistics, (2010), Logistics techniques are developing fast, but not fully connected with the development of Internet and IT today. And not too much scientific study supports the coordination between logistics techniques and Internet. E-commerce and logistics should have a coordinated relationship that helps new e-commerce companies to develop well. Besides the IT developing, how to allow e-commerce and logistics developed coordinated is still needed for the future research.

In this section, we present the experience the of e-commerce development situation. And the reason of why would like to choose ‘coordination development of e-commerce and logistics’ as a study subject is that, it’s conform to the recent economic development and interesting.
1.2 WHY WE CHOOSE AMAZON.COM?

Amazon.com is a typical B2C (business to consumer) company. It sells products and service directly to customers, and that always happens on the internet. So in this thesis we choose China Amazon.com as a research topic. Besides, we also choose Jingdong Mall (China B2C Company) as a comparison subject. E-commerce business through the internet to provide consumers a new type of shopping environment like online stores, customers’ shop on the internet and online payment. This mode saves the time and space of plan, greatly improving the efficiency of the transaction, especially for busy office workers, this design can save valuable time. Logistic is an important part of electronic commerce, and it support the development of electronic commerce. If the goods cannot be delivered to the customer on time, the customer will choose safety and traditional shopping way. So without the support of logistic, electronic commerce cannot happen. Electronic commerce and logistics is related closely.

There is one more reason that we choose China Amazon.com as the researching subject because the required information is much more easily available from homepage of Amazon (2012) than other business. Amazon was founded in1995, at present Amazon has become an online retailer with the most varieties of global commodity and the second biggest internet company around the world.

In the US, Amazon has become mature. But China as a developing country, more new e-commerce companies have been developed, and more comparison has been happened. So in this situation, for a fast and steady growth the companies should solve the bottleneck between e-commerce and logistics and have a coordinated relationship. This is the reason of why we choose the research subject.

But there still have many problems need to solve, like logistic companies compete, focus on price first; more new e-commerce enterprises establish with more competitive challenges than other countries. Some spaces need to improve the logistics aspect.

1.3 PURPOSE

The purpose of the thesis is to explore the relationship between e-commerce and logistics in B2C (business to consumer) companies.
The aims of the thesis are:

i. Describe the coordination mechanism between e-commerce and logistics in general and particularly in Amazon.com.

ii. Find out the common general strengths and shortcomings of logistic when a company is developing e-commerce.

iii. Figure out ways to coordinate logistic when developing e-commerce and explain how Amazon.com is developing e-commerce.

1.4 OUTLINE

This thesis consists of eight parts. Section 1 provides an experience of e-commerce and the relationship between e-commerce and logistic, and the idea of the thesis. Section 2 explains the main method that we used to achieve the purpose, including the interview and questionnaire we made; the limitation is also included in this section. Section 3 describes some literature or previous relevant research regarding amazon.com, e-commerce and logistics. Section 4 presents the results that are based on the secondary data. Section 5 tells the study of, how the B2C e-commerce and logistics develop a coordination mechanism. Section 6 provides the final conclusion of the thesis, and it is directly related to the purpose. Section 7 presents all the references that we have used in the thesis

2. METHODOLOGY

2.1 COMMON RESEARCH APPROACH

There are two major traditions of research approach in social sciences which are Qualitative Research and quantitative research (Bernard, 2000). In our thesis, base on our research questions and orientation, we choose to use qualitative research as our research approach. So we first differentiate Qualitative Research and Quantitative Research.

2.1.1 QUANTITATIVE RESEARCH
Quantitative method is the pursuit of knowledge of objectivity and universality according to Bernard (2002). The quantitative study of data acquisition process stressed is conclusions of objectivity, and not affected by researchers of values (prejudice) impact. Quantitative research has a formalized and can operationalization features. Quantitative research through the research object of characteristic according to some standard for quantity comparing to determine the characteristics of target value, or find out some factors between the amount of variation. (Bernard, 2000).

This research refers to determine the things at one prescriptive perspective, research problems in the scientific way with a phenomenon quantify and to study, test, therefore, we can achieve significance explanation of the research methods and process. Quantitative research is based digital symbols to measure. Rigorous standard measurement, carefully controlled conditions and complicated statistics analysis, it is usually a quantitative study design contents. (Bernard, 2000). Quantitative research on "logical positivism" is to create data, which emphasizes use deductive reasoning to conclusions. Quantitative research methods to lead the researchers explore new knowledge is very helpful.

2.1.2 QUALITATIVE RESEARCH

Qualitative research is performed through the discovery of problems, understanding events phenomena, analyzing human behavior and ideas and answer the questions in order to obtain the insight. It is the researcher used to define problems or issues way.(Merriam, 1998). And Qualitative research is research the understanding of the phenomenon. It is a research to solve “why” problems.

According to Flick, there are three most common qualitative methods; each method is particularly suited for obtaining a particular type of data. They are: 1) Participant observation is appropriate for naturally collecting data on occurring behaviors in their usual contexts. 2) In-depth interviews are optimal for collecting data on individuals’ personal experiences, perspectives and histories, particularly when sensitive topics are involved. 3) Focus groups are effective in eliciting data on the educational standards of the group and in generating broad overview issues of interest to the social groups or subgroups represented. (Flick, 2002)

And Qualitative method is a pursuit of knowledge, that is, from the perspective of the subjective understanding human experience. Many qualitative method emphasize on something real to determine methods of, general often use such as subjectivity, relativity, or
scenarios sex etc, these words and phrases hinted that quantitative research errors. Qualitative research also depends on induction logic, not romance logic (Bernard, 2000). Usually the qualitative research must first collecting, sorting material, and then interpreting a huge mass of data. Data collection process usually performs through in-depth interviews, participatory observation or connotation analysis method.

<table>
<thead>
<tr>
<th>Quantitative Research</th>
<th>Qualitative Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collecting data with dealing it.</td>
<td>Collect data first, then analysis data</td>
</tr>
<tr>
<td>Objectivity</td>
<td>Subjectivity</td>
</tr>
<tr>
<td>Try to explain forecast</td>
<td>Try to understand</td>
</tr>
<tr>
<td>Use the romance logic</td>
<td>Use the inductive logic</td>
</tr>
<tr>
<td>Inspect the hypothesis</td>
<td>No hypothesis</td>
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Figure 1: quantitative research and qualitative research (Bryman, 1992)

In the figure above, some major compares of Quantitative Research and Qualitative Research were made by Bryman, A. (1992) in an easy way. Firstly, the Qualitative research study the data that collected before, but Quantitative research collecting data with dealing it. Secondly, Qualitative research is subjectivity, but Quantitative research is objectivity. Thirdly, Qualitative research is trying to understand the topic, but Quantitative research is trying to explain forecast. Fourthly, Qualitative research uses the inductive reasoning, but Quantitative research uses the deductive reasoning. Fifthly, Qualitative research has no hypothesis, but Quantitative research has.

Above of all, base on our research questions and orientation, we choose to use qualitative research as our research approach. We are focus on the study the phenomenon and development of E-COMMERCE-commerce not only using the database from interviewees but also the backgrounds information from websites. Quantitative research is also a good approach, but we didn’t have the possibilities to get detail quantitative data and we don’t have a hypothesis for the thesis, therefore, we eventually choose qualitative data as the research approach.
2.2 RESEARCH METHODS

2.2.1 CASE STUDY

According to Yin (2012) there are 3 types of case studies. They are exploratory case study, descriptive case studies and explanatory case studies.

An exploratory study is conducted as a separate task. According to Yin(2012), a case study may start with exploratory work, because some major aspects is initially uncertain about, like the questions to be asked, the hypotheses of the study, the data collection methods, the access to the data, or the data analytic methods. So it need to investigate one or more of these issues. Once investigated, the pilot or exploratory phase be considered as having been completed. Now, the exploratory should start the real case study from scratch with a complete study design, a whole new set of sources of information, and a fresh set a date.

Descriptive case study represents a multiple case design, and it is an especially education in four states: Massachusetts, South Dakota, North Dakota, and New Jersey. The case study followed a pattern-matching procedure: Data about each state’s activities were compared with two rival, idealized, and theoretic patterns. Yin (2012).

Explanatory case study is a theory about “how” and “why”. It is suitable for designing and doing exploratory case study. The more complex and multivariate is the explanatory theory, the better. The case study by Yin (2012) analysis can then take advantage of pattern-matching techniques. A study conducted on the subject of research utilization benefited from the prior existence of several complex and rival theories - readily translatable into operational terms- and serves as this chapter's fifth illustrative use.

Above all, we use the exploratory case study as a methodology. Because we chose one company and used the qualitative research method, and exploratory study is more fits our case. The research producer and users belong to overlap professional networks with ongoing communications. We can predict their future needs to reflect a sensitivity to ongoing research developments.

2.2.2 DEDUCTIVE AND INDUCTIVE APPROACH.

According to walliman(2005), An inductive argument contains the claim that its premises only provide some support for the conclusion, rather than furnishing conclusive grounds for its truth. An inductive is an inference process, from the detail things summarize the principal
or conclusion; it is opposite with the deductive reasoning. A deductive means from the concept in principle, and through the process of study and personal experience can generalize the way of thinking. A deductive argument involves the claim that its premises provide conclusive grounds.

Deductive and inductive arguments can be seen as seeking the truth from the different directions. Through deductive reasoning, we infer the particular from the general, while through inductive reasoning, we infer general truths from the particular. They consider the two different ways of people thinking and cognition things. Inductive is a process of from the person to the general, and deductive is a process that from general to process.

Inductive and deductive are complement each other and converse to each other, but they both have some limitation. Inductive method is summarizing the existing theories with the existing limited material; it cannot insure the universal of conclusion, so that it is hard to distinguish if the conclusion is the best. Same on the deductive method, it cannot tell if the original principle is truth. In this thesis, we use deductive reasoning, because the idea that E-commerce and Logistics has a coordinated development mechanism is firstly said. Then support the theme by using the example Amazon.com.

2.2.3 REVIEW

An efficient data analysis needs to explain and integrate current data, history experience and the environment. “Primary data, that is data observed, experienced or recorded closest to the event, are the nearest one can get to the truth, distortions inevitably occur as the proximity to the event decreases.”(Walliman, 2001) the primary data was gotten from interviews and questionnaire study data. The secondary data has been subjected to analysis they are referred to as further data. (Walliman, 2005). The secondary data are not gathered directly and purposefully for specific research. The secondary data in this thesis was gotten from a database such as Amazon WebPages, online articles and academic journal. (Marie & Hauser 2007) state, most importantly use the data, the more effective data analysis is incorporated in the decision-making process, the more a company will find it valuable for corporate growth, and so did we. P.115. (Marie & Hauser, 2007).
2.3 DATA COLLECTION

In this part authors introduced the methods of data collection used in this thesis work specifically.

There are two types of data: primary data and secondary data by (Talisman, 2005). We used and collected both of them. The document mostly collected from a database through university’s ID such as Google scholar, some else from library books. Both primary data and secondary data used on measure, comparisons, forecast, construct ideas and theories, explore, control, and explain. Some methods are used for more than one process.

2.3.1 PRIMARY INFORMATION (INTERVIEW)

The primary data are usually from interviews and questionnaire study data. (Walliman, 2005). Primary information is a type of information that can be got from a company directly without it being analyzed or evaluated. It can be collected through questioning or observation (Saunders, 2007). The primary information collection has to suitable for the research purpose and will provide the thesis a realistic view on the research problem. Sampling and asking questions play significant roles in doing research (Talisman, 2005). Therefore, this work mostly depends on interviews.

Interviews

There are two main methods of conducting interviews which are face-to-face interview and telephone interview. Face to face interview can be carried out in a variety of situation, in the home, at work, outdoor, on the move, and can be used to question members of the general
public, experts or leaders, particular segments of society, or disabled people, ethnic minorities, both singly and in groups. (Walliman 2005) Telephone interviews avoid the necessity of travelling to the respondents, and all the time and problems associated with contacting people personally. With wider telephone ownership, particularly in developed countries, it is often possible to contact a suitable sample of the target group by the process. (Walliman, 2005). Above all, the study subjects Amazon and Jingdong Mall are both in China, so we choose the telephone interview.

There are three types of interviews which are structured, semi-structured and open. (Walliman 2005). The structuring interview depends on the type of information you wish to elicit. For very precise answers to very precise questions, used in quantitative and statistical analysis, a closed questions formulated in the process related to a questionnaire is required. A semi-structured interview was between achieving defined answers and defined questions, while leaving time for further development research of those answers, and it is including open questions. If the research need to explore the situation and want to get information which you cannot predict, then the open interview is appropriate. Both structured interview and open interview are using in the thesis.

We contacted Chinese Amazon Company instead of UK Amazon. There are two employees that took our interview in Amazon China, they are Xiaoou Pan, the Logistic associate director and Zifan Wong, manager of logistics department. We had one interview for the Xiaoou Pan and another interview with Zifan Wong. We also contact customer service department; a random customer representative answered some general questions. There is another company for compare called JingDong Mall (2012) we called the customer service for a short interview and they answered some general questions about logistics model. This company will be a compare business with Amazon China.

### 2.3.2 SECONDARY INFORMATION

The secondary data have been subjected to interpretation they are referred to as further data. (Walliman, 2005). The principal sources of secondary information comprise libraries and archives, museums and collections, government departments and commercial bodies, the internet and the range (Talisman, 2005).

When Compare the secondary information to the primary information, secondary information is much easier and quicker to obtain, besides it generates a lots of help when examine and
have a deeper understanding of primary information. But there have some disadvantages of secondary information that are some of the information are not current, and the confidentiality issue may be raised (Saunders, 2007). On the other hand, the secondary still have some benefits that we decided to use. In this thesis, we use the secondary data from our textbooks, the books in the library, other textbooks borrowed from supervisor, and the data from Internet.

Literature review

Reviewing the literature is an important research activity in the thesis. These sources are mainly from university library, google scholar, Diva thesis & research publications, reports from china’s logistics association, textbook and articles offered by supervisor.

2.4 RELIABILITY AND VALIDITY ,LIMITATION

‘Reliability and validity are tools of an essentially positivist epistemology. P.7’ (Winter, 2000 )

Reliability: Joppe (2000) defines reliability as: ‘…The extent to which results are consistent over time and accurate representation of the total population under study is referred to as reliability, and if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable, P.1.’ (Golafshani, 2003). In this paper, firstly we collect large amounts of book, articles and literatures by ourselves, which these can be searched from Google scholar.

Wainer & Braun (1998) explain the validity in quantitative research as “construct validity”. (Golafshani, 2003). We create interviews and the information from the interviewer are temporary valid. And we also need to check if the documents are valid. Base on we choose single case study as a process, then we can focus on the case company, and it provides more accurate information. The case company can represent the business of electronic commerce because this company is the top general B2C E-commerce company in China What’s more; we consider the experience and profession of the range, and then choose the case very carefully, the most suitable could conduct the research.

We have made an interview with the logistic deputy commissioner in Amazon, but delimitation is that the deputy commissioner is busy, and he only has one hour for us to make the interview. Because of the time limitation, we cannot get satisfied and detailed information from him. The interview might be a little different due to translation. So we collected some secondary data to support our thesis. But the secondary data from a website has a reliability and validity problem that may only show the good aspect. In order to get specific data about
logistics in Amazon and the Jingdong Mall, we call the customer service wants to get more logistic information. But it’s not easy for us to through it and we get useful information. The other limitation is the privacy policy, according to the company’s privacy policy we have no right to get the logistic data in details. The interview questions was limited and only for some specific domain.

3. THEORETICAL FRAMEWORK

In this part, pertinent literature is represented. Relevant literature is reviewed in this section to have an insight of concepts e-commerce, business-to-customer (B2C) e-commerce, logistics, and third-party-logistics (3PL). Besides, for a clear structure of our thesis, we break down two research questions respectively into some sub-questions, and then relevant data are collected, and analysis methods are performed by based on different questions. The research objectives are broken down as following:

(1) What are the coordination mechanism between e-commerce and logistics in general?
   a) How the logistics helps developing e-commerce?
   b) How the e-commerce helps to improve logistics system?

(2) What are the strengths and shortcomings of logistic when a company is developing e-commerce in general?

In this section, the strengths and shortcomings in both third-party-logistics (3PL) and self-logistics are reviewed.

a) What are the strengths of 3PL?

b) What are the strengths of self-logistics?

c) What are the shortcomings of 3PL?

d) What are the shortcomings of self-logistics?

3.1 CONCEPTS

In this section, the definitions of e-commerce, B2C e-commerce, logistics and 3PL logistics are presented.
3.1.1 E-COMMERCE

E-commerce according to Laudon & Traver (2008), the use of the internet and the web to transact business, more formally, digitally enabled commercial transactions between and among businesses and individuals.

Rosen (2002) states that electronic commerce or e-commerce refers to a wide range of online business activities for products and services. And it useful to any form of business transaction in which the parties interact electronically rather than by physical exchanges or direct physical contact. E-COMMERCE-commerce is usually related with conducting transaction concerning the transfer of ownership or rights to make use of goods or services through a computer-mediated network, or buying and selling over the internet.

Trappey (2001) states the internetwork in china has a significant limitation, while maintaining openness to innovative applications and technology. Firstly, the development of Bank (E-bank) makes a significant space for the electronic commerce. A wide range of information technology was promoted the use of electronic data. Early days under the government restrictions, it was developed slowly because only few people have a credit card. Then, by the impact of Hong Kong and Taiwan, the high china started to large-scale develops the back sector and in the meantime start to develop B2B and B2C business model. Those raising development rely on the integration of supply chain management and logistics management. The article compares several benefits and implementation between Taiwan and Hong Kong.

Other definition of Electronic commerce is proposed by Chaffey (2004); e-commerce is thought only to buying and selling using the internet and people quickly consider of consumer retail purchases from companies like Amazon.com. But as Chaffey(2004) believes, E-commerce involves much more than electronically mediated financial transactions between customers and companies. Many commentators talk about e-commerce as all electronically mediated transactions between and company and any third party it deals with.

3.1.2 B2C E-COMMERCE

Xing & Grant (2006) states, B2C e-commerce, also termed e-retailing, is apprehensive with selling of goods and services between firms and consumers via the electronic media.
The online companies selling to individual consumers are called B2C e-commerce. This type of e-commerce is more popular than other types. Amazon is general merchandise that sells consumer products to retail consumers. Laudon & Traver (2008)

B2C is a model is an electronic means through internet and networks to transaction referred to electronic commerce. This business model is reviewed and barrier to their uptake in the structure area offered. By directly commerce to customer and reducing the middle process, the company can reduce the prices and get great benefits. (Anumba, 2002)

3.1.3 LOGISTICS

There are many kinds of definition about logistics management, for example, according to Christopher (2011), “Logistics were the process of strategically managing the procurement, movement and storage of materials, parts and finished inventory (and the related information flows) through the company and its marketing channels in such a way that current and future profitability are maximized.2 (Christopher, 2011).

Douglas (2000) states “Logistics is that part of supply chain process that plans, implements, and controls the efficient, effective flow and storage of goods, services, and related information from point of origin to point of consumption in order to meet customer’s requirements”.p 68. (Douglas, 2000). A much simpler definition of logistics is offered by Delaney (1996) In his statement“logistics is the management of inventory in motion and at, rest…(and that) the goal of the logistics manager is to achieve the lowest level of investment in inventory consistent with ensuring customer service and maintaining efficient production”. P9. (Delaney,1996).

Logistics in China

Logistics in China states by Lai.et.al (2006) with the admission of China into the WTO, the business of logistics in China is set to grow fast. The annual revenue that china’s logistics industry has reported growth rates of 31 percent for 1999, 35 percent for 2000, 55 percent for 2001, and more than 50 percent for 2002-2004. The point of view from the number of Internet users: as of June 2011, Chinese netizens reached 485 million which an increase of 2770 million as compared to the end of 2010; Internet penetration rose to 36.2% which increased by 1.9 percentage points compared with 2010. The scale of China’s mobile phone users is 318
million which an increase of 14.94 million as compared to the end of 2010. Mobile phone users in the proportion of overall internet users reached 65.5%, to become an important part of Chinese internet users. (Lai, et.al. 2006).

With the support of entering the WTO, China’s current distribution system is opening of distribution rights Jiang & Prater (2002). After a china entry into the WTO, foreign firms were severely restricted from providing distribution services in china for both their own proprietary operations and for third parties. Foreign companies with multiple operations in china were forbidden from establishing consolidated distribution activities, such as shipping and invoicing. This is changing.

3.1.4 THIRD-PARTY-LOGISTICS

Third-party logistics (3PL) services are firms that offer a range of logistics activities for their consumers, according to Christopher (2011). According to Boumole (2003), third-party logistics is generally defined be the utilization of an outside firm to perform all or part of another firm’s operations, it’s related to outsourcing or contract logistics.

Langley et al, (1999) provides the following definition about third-party-logistics: A company that provides customer various logistics services, the third-party logistics provider is rewarded for service and is external to the customers. (Stefansson 2006). Believed by Jiang & Prater (2002), the traditional China distribution system, in the pre-reform period, both the china’s production and distribution were conducted exclusively in relation to order of the state plan; factories manufactured what, how much must central planners told them; china distribution channels were sternly controlled by the three-tier system. State-owned distributors transported products from tier-1 facilities to region and cities, then to local retailers. This extended distribution system improved the prices as each layer added additional operating margins ranging from 5-17 percent with no market forces at work.

3.2 COORDINATION MECHANISM

Ying, (2006) mentioned that now in china, e-commerce and logistics should go hand in hand and convergence. Achieve to the purpose of sharing interest rate, logistics operation, automation, networking, flexible and intelligent. Then understand the goal of coordinated development of modern logistics and e-commerce. Logistic is the important part in
developing e-commerce, at the same time, e-commerce helps to improve logistic system. There are both indispensable (Delfmann, et.al. 2002). The following perspectives are focus on the coordination mechanism between e-commerce and logistics, and the strengths & shortcomings of logistics in developing e-commerce. The definitions of e-commerce and logistics are also described. And also the situation of e-commerce from empirical articles is presented.

3.2.1 THE DEVELOPMENT OF B2C E-COMMERCE NEEDS LOGISTICS TO SUPPORT

Cho et.al, (2008) mentioned that the relationship between logistics and e-commerce is very close. Logistics is very significant part in developing e-commerce, the impact of e-commerce on logistics must be enormous. Logistics in the future development of e-commerce are inextricably linked. They think this relationship are the contradictions of the logistics itself to develop e-commerce’s development, and e-commerce is precisely to provide a means to resolve this contradiction; in turn, e-commerce contradiction solution also need logistics to provide the resources for, a new economic model requires new logistics model.

Slywotzky (2000) explain the part of the statistics, in the commodity production and sales process, only 5% of the time is using for processing and production, the remaining 95% of the time used for storage, loading and transportation. Logistics costs accounted for 30% to 50% of the total value of goods, accounted for 20% to 80% of the funds. So logistics is called the enterprises’ gold mine. Logistics part of economic growth is the “dark continent”, is “the final frontier to reduce costs, is the “the third profit source” after reduce resource consumption and increase labor productivity. In addition, some European and American scholars believe, the role of logistics activities does not lie in cost saving for the plan, but to increase the enterprise level of service to users, thus improving the competitiveness of enterprises.

According to Wu (2005), the rise of electronic commerce is inevitable, but if the customer wants to buy real products from the virtual system, the logistic is needed. And the rise of electronic commerce is greatly accelerated the development of the logistics industry. The Electronic commerce sparked the way of trade innovation, especially the circulation pattern changed. In the process of developing E-COMMERCE-commerce, logistics played a vital role. Without an efficient and reasonable, expedite logistics system, electronic commerce’s benefit will be difficult to play, the electronic commerce also hard to get the efficient development. At the same time, the electronic commerce in promoting China’s logistics industry from the traditional mode to the modern design development, also play an
irreplaceable role. As the system technology and application development, electronic commerce and the logistics is increasingly close relationship. On the one hand, the system development to logistics development provides a very broad development prospects and technical support, it could say no system is no modern logistics, on the other hand, the system to modern logistics and provide a new direction of development and new customer demand, modern logistics has become an essential part of the system and support the modern system of business applications.

Cho et.al, (2008) believe that, some view that the flows of commerce rely on logistics support, so"logistics is an important part of e-commerce". But between logistics and the flow of commerce is not just to support, and supportive relationships, such as waste recycling and return are two examples. For the relationship between logistics and the flow of commerce, may say a little better: the logistics and the flow of commerce, are the content of e-commerce, corresponds to the relationship. Another way is the logistics and e-commerce is the corresponding relationship. The most essential success of e-commerce is let business flow become information process, information processing electronic. Short e-commerce is online trading of goods or service. Such trading is the buying and selling of the ownership of the ownership of the goods or services; that is the flow of commerce. B2C e-commerce is a virtual economy; let the flow of the network economy, flow of information technology and flow of electronic information be together. Make business, advertising, ordering, purchase, payment and authentication physical & transaction processing virtualization and informatization. But logistics is the entity transfer. So the “real” is a part of “virtual is not an appropriate saying. But it may be more appropriate saying that the relationship is a corresponding “actual situation”. Cho et.al, (2008)

Song et.al, (2000) states that, decentralization forces larger firms into more manageable and smaller companies and putting them in their particular markets will lose the important benefit. Logistics outsourcing is often thought of as a make-or-buy decision and based on cost efficiency, but increasing complexity and competitiveness make it a strategic choice.

3.2.2 THE LOGISTICS SYSTEM INFLUENCED BY THE DEVELOPMENT OF B2C COMPANIES

As Zhang & Li (2004) said, the electronic commercial have the very significant effect on the logistics business development. Through the internet, logistics companies can be found by greater range of customers can develop business in the nation and even the whole world
scope. The commercial companies can find the most suitable price for the Logistics companies quickly. Online logistics to worldwide can attract the maximum number of a logistic's business, and the owner of the plan provides logistics service together, helps logistics in both part. At present, there are more and more clients through online logistics market found customers, found the partner, found the overseas agent.

In addition, electronic commerce affairs will be a business revolution; it broke and border regions, opening a huge online industrial business, as a guarantee of e-commerce, logistics will have big development. The development of logistics in China’s enterprises to participate in the international competition of need is to reduce the gap between developed and developing countries of the logistics industry. Although China’s E-COMMERCE-commerce starting late, but the development orientation is very good, countries and plan attach great importance to developing electronic commerce, and in the electronic commerce made great achievement. Electronic commerce development of China’s logistics will drive the development. In addition, the electronic commerce trade without borders, the internet can be instantly in global. As the system technology development, electronic commerce and logistic are developing better with each other, modern logistics has become an essential part of the system and support the modern system of business applications. (Zhang & Li, 2004)

According to Qu (2012), logistics enterprises will be more and more strengthening, because in the electronic commerce environment must assume more important tasks. The logistics industry become the leader of social production and the coordinator for the society; provide a full range of logistics services. Electronic commerce promoted unprecedented levels of the logistics industry, provide it with the unprecedented development opportunity. E-commerce is a high-tech and the information revolution. It puts the business, advertising, order, purchase, payment, authentication, material object and transaction processing virtualization and informatization, make them can processing information on the computer system. Processed the electronic information, strengthened the information processing and weakening the entity processing. This will inevitably lead to restructuring the business, some unique companies and enterprises will gradually compression and even die, will develop and create some companies and enterprises.

Logistics enterprises will be increasingly strengthened, because it must assume an important job: take the virtual stores of goods to the hands of users, but also purchase storage from the suppliers on time in the e-commerce environment. The logistics company is both production and warehouse of the plan, is the users’ material suppliers. Logistics enterprises have become representative of all manufacturers and suppliers to only the most concentrated, the most
comprehensive supplier of in kind. Logistics business to become a leader and coordinator of the social production chain, to provide comprehensive logistics services for the community. Visible e-commerce raised logistics industry to the unprecedented heights, providing unprecedented development opportunities. Deng et.al., (2008).

The electronic commerce is using in many area and in stimulate the development of logistics. Ira (2001) states a concept of logistics and information system; rely on the IT technology to revolution and recombination. There are two types of coordination mechanisms which are hierarchies and business, E-hierarchies can be used in supply chain, the business can classify to the centralized and decentralized. In electronic hierarchy, the company involved a long-term relationship with supply chain; distribution and buying are completed by manager decision. The cooperation between companies may blurry, but it's clear and independent in law. Understanding each other and trust could be a good supporting. The fast development of e-commerce base on internet and web browser, the earlier technology like EDI software can be an advantage of e-commerce. Online trade markets are exchanges information for a wide variety of source. Generally, buyers find a supply source by magazines or catalogs, and get advice from sales agency, then arrange the buying by mail or phone. In contrast, e-commerce is reducing the total cost of those activities. Electronic hierarchies are very important, is can keep the differentiation of product, the future e-commerce may include the combination of hierarchies and business.

3.3 THE STRENGTHS OF LOGISTIC

According to Li (2011), logistics IT is the important symbol of modernization of logistics, the fastest growing areas of logistics technology. A variety of terminal equipment in the office automation system is developing rapidly, bar code from the data acquisition system, hardware and computer software to the computer. Meanwhile, with the continuous development of logistics, resulting in a set of new logistics concepts and the new logistic mode of operation, advanced logistics development. In supply chain management, logistics and development of information technology change the way enterprise applications, supply chain management to achieve a competitive advantage, and the success of the plan through the use of IT to support its business strategy and choose its business. Increase the efficiency of supply chain activities through the use of IT, to improve business decision-making ability of the entire supply chain.
3.3.1 THE STRENGTHS OF THIRD PARTY LOGISTICS

According to Zhang & Li (2004), the strengths of third-party-logistic are:

1. The third-part-logistics’ price is cheaper than the self-logistic, and it need small investment;
2. Can deliver the goods to the areas that the self-logistic cannot reach.

According to Jiao (2008), supply chain improves organizational effectiveness by caused by the interest of many companies. With the globalization for business operation, outsourcing is increasingly common. According to statistics, the global top 500 enterprises, 60% companies use third-part-logistic service and many companies also use more than one. That because logistics is helpful for developing e-commerce. The use of third-part-logistic allows companies to reduce operating and capital costs to improve the financial situation, can also provide a single carrier does not have the scope and scale to simplify the transportation buying decisions. Successful third-part-logistics can provide services worldwide, the use of terrestrial, marine and aviation and other modes of transport, and can increase efficiency through scale.(Jiao, 2008).

Song, et. Al. (2000) states that, manage small-scale companies is easier than large-scale companies. And when putting smaller companies in their particular markets, large-scale companies will lose the important benefit. But logistics outsourcing is often thought of, as a make-or-buy decision and based on cost efficiency; the large-scale companies can be more suitable for the growing complex competitive. Thus, large-scale companies may follow logistics outsourcing for one or more reasons: desire to focus on its own core competency; lack of professional logistics information; the difficulty in communication and up to date information; the desire to improve system capabilities along the global supply chain; and the desire to build flexibility within available resources. According to Song, et. Al.(2000), all this problems can be solved by a third part logistics. At present, the majority of traditional companies into excessive competition and the industry competition focus to shift the fight to the distribution channels. Modern logistics is generally regarded as an important source of profit outside of the lower material consumption and increase labor productivity. Developed countries in the development of logistics management theory and practice bring great changes and progress of the transportation sector, caused by the close attention of the transportation sector in china. Can be met, the modern logistics industry will become an important business in china. And the third-part-logistics are a main transport logistic, so the third-party-logistics (TPL) of course will affect the development of e-commerce. (Delfmann, et.al., 2002)
3.3.2 THE STRENGTHS OF SELF-LOGISTIC IN DEVELOPING E-COMMERCE

For the self-logistics, As Zhang & Li (2004) mentioned, in many companies, the logistics is a combination of self-built logistic and third-part-logistics. So as Jingdong Mall, New eggs, Yi Xun, Dangdang, and Amazon in China. The strengths of self-logistics are briefly discussed below:

1. Assist marketing activities, increase the viscosity of the customers and resulting in the second purchase. The e-commerce companies and customers can contact face to face, and allowing customers to understand e-commerce companies.

2. When the dispatchers deliver the goods that the goods from their own business, it would be more care than using other companies. So the loss and damage of goods will decrease by a significant margin.

3. The distribution area that the self-logistics can to delivery, the speed of delivery be greatly increased. While with the support of COD (cash on delivery), improve the customer shopping experience.

4. Self-logistic can improve the corporate image.

3.4 THE SHORTCOMINGS OF LOGISTICS IN DEVELOPING E-COMMERCE

E-COMMERCE-commerce originated in the U.S.; the logistics industry in U.S. has already quite developed before the concept occurred. In China, although e-commerce is flourishing, but seriously lagging behind the level of logistics technology and logistics management, logistics and distribution system is very important, which gave the e-commerce has resulted in greatly hindered. (Qu, 2012). At present; Li (2011) said that the number of internet users in China already exceeded 485 million, of which approximately 31.4% of the online shopping experience. B2C e-commerce developments, in fact, not expected but have three significant bottlenecks. The three major bottleneck of the e-commerce is logistics, online payment and online security. With the rapid development of IT, the e-commerce online security has been resolved; payment by third-party online payment services company to provide electronic payment products have been a good solution. Alibaba’s payment Bao (china) networking technology co. led to provide online payment services in the b2c field use to solve the
payment problem. However, the logistics industry is seriously lagging behind a serious impediment to the development of B2C e-commerce. According to (Cho, et al., 2008), Logistics is limited of the development of E-COMMERCE-commerce; it also can truly consider the electronic commerce of the benefits of the key factors. Although the electronic commerce in China is started for few years, but the industry’s hype, media publicity is not enough to make the great growth of electronic commerce in China, backward means payment and slow distribution still make electronic business looks like a theory nouns. The lack of technology was not the reason, but behind the management system and the ways of organizing is the reason. The development of logistics is China’s enterprises to participate in the international competition of need. It is a challenge to reduce the gap between developed countries.

3.4.1 THE SHORTCOMINGS OF THIRD-PARTY-LOGISTICS IN DEVELOPING E-COMMERCE

From the status quo of China’s logistic we can see, third party logistics has four shortcomings in developing e-commerce as follows: (Qu, 2012)

1. Logistics infrastructure imperfect is the main reason of the long-term impact of the development of e-commerce: The infrastructure is a key part in logistics operation. Embodied in the capacity of rail and coastal waterways is tight, and port’s distribution capacity less than two. Highway construction is not satisfactory, and some port congestion, road, rail and port of the fact that in some areas has been overloaded, but still difficult to meet the need for social logistics. (Qu, 2012)

2. Logistics system is imperfect, and the management level is not enough to limit the rapid development of e-commerce: The lack of good logistics system is a major obstacle to e-commerce development in china. A complete logistics system should include a complete hardware and software. We can buy all the hardware but cannot buy the “software”, such as management and technical capabilities, and even the corporate culture and moral values. Logistics costs constitute the gap can be seen that China’s standardization and information technology work to keep up the logistics needs of the development; logistics management cost is much higher than developed countries. (Qu, 2012)

3. The irregularity of the logistics enterprises is a key factor for long-term impact of the development of electronic commerce: China’s logistics activities at a low level, extensive
stage, it’s difficult to adapt to the many varieties of the e-commerce model, multiple batches, and small quantities of circulation changes in the way. Enterprise logistics are accustomed to operate in accordance with the model itself has been formed, not a lot of potential logistics demand into effective market demand; at the same time, due to its small size, weak in strength, single function, service quality and efficiency is difficult to meet the social logistics needs. China’s logistics outsourcing is still mostly traditional transportation and warehousing business, the very low proportion of emerging logistics outsourcing. Most of the logistics companies are flocking to the field of transport resulting in China’s transport capacity, especially road transport capacity is widely dispersed, and the lack of integration between the different enterprises cannot provide a seamless connection, resulting in low transport efficiency. Although the tariff is low, but the overload still serious, such effects appears to be low-cost, in fact, caused by a low-level duplicated, is not conducive to the development of e-commerce, in the long run only increased the cost. (Qu, 2012)

4. Policies, system and concepts of logistics cause of the uneven development of e-commerce:

The existing traditional system will result in fragmentation; it’s difficult to provide complete coordination of the development of modern logistics management mechanism, and cannot be fully functional logistics organization and coordination; addition, the development of the market is not mature enough, the presence of local security and secret operations, the social credit system is not sound, logistics modernization, the lower the degree of especially, resulting in inefficient logistics. The presence of such an environment affects not only e-commerce, but also radically restricts the orderly and healthy development of national business system. (Qu, 2012)

As Zhang & Li (2004) mentioned, the third-party-logistic is not developed perfect in China, it has shortcomings as below:

1. Poor service for the goods, especially the rough handling of bulky items;

2. third-party-logistic can support COD (cash on delivery), but the fee is too expensive, such as the fee for Wind Express business is 3%.

### 3.4.2 THE SHORTCOMING OF SELF-LOGISTICS IN DEVELOPING E-COMMERCE

According to Zhang & Li (2004), the shortcomings of self-logistics are:
1. It cost a lot for the self-logistics, general the warehouse of e-commerce plan will select a place in the forefront of advanced cities. So it must leased a 20,000 square meter warehouse and cost about 5 million RMB in 1 year;

2. Employees in the self-logistics sector changes frequency and it often lack of people;

3. The self-logistic has logistics centers and distribution points. Manage these logistic centers and distribution points are not an easy thing;

4. How to reduce the pirates of the loss rate is also a headache problem for the self-logistics.

3.5 SUMMARY OF THE MECHANISM

For this thesis we divided the coordination mechanism of a B2C business into two parts:

1. The development of B2C e-commerce needs logistics for support: Logistics in the future development is inextricably linked with e-commerce. A new economic model needs a new logistics model. Without an efficient and reasonable logistics system, e-commerce will suffer because no one wants to delay their shopping.

2. The logistics system influenced by the development of B2C companies: e-commerce has a significant effect on the logistics development. Through the internet, logistics companies can be found by many consumers. Such companies would have to expand nationally, even worldwide. The commercial companies can find the most suitable price for the Logistics companies quickly. Online logistics can attract the maximum number of market The owner of the plan can also hire third parties if needed.

The figure below shows the pros and cons of logistics when developing E-commerce. We divided the theory into sections for a clear analysis, comparing the strengths and weaknesses in 3PL and self-logistics. The strengths and weaknesses are taken from different literatures.
The strengths of 3PL compared with Self-logistics are: 3PL usually cheaper than Self-logistics, requires a low investment and the warehouse usually found in remote areas. All these factors directly affect the investment in the logistics system, reducing the cost.

The weaknesses of 3PL compared with Self-logistics: 3PL company infrastructure does not improve quickly, usually has a high COD (cash on delivery) and the service cannot be guaranteed.

The strengths of Self-logistics compared with 3PL: it can improve the company image. Fast deliveries and trained employees will increase customer satisfaction and reputation.

The weaknesses of Self-logistics compared with 3PL: more resources and employees will be used to improve the self-logistic department which requires more investment.

### 4. FINDINGS

#### 4.1 THE SITUATION OF AMAZON.COM IN CHINA ONE-COMMERCE

Amazon is an internet-shopping business which is the typical B2C e-commerce model we are talking about Laudon & Traver (2008). Now Amazon.com is become an e-business leader in the USA and develop china business from 2004, quote from Amazon homepage. Amazon.com is a start as online-book store, cheap price and free delivery gain many customers at that time in U.S. Chinese e-commerce since 1997, a large-scale e-commerce project launched in 1997
opened the prelude of the Chinese e-commerce. From 1999, the Chinese e-commerce to enter a period of rapid growth of Chinese e-commerce thus officially launched. Amazon acquired Joyo (China e-commerce company) in August 19, 2004. Amazon starts developing Chinese market, the combination of Amazon’s online retail expertise with the Joya Chinese business experience. Thanks to Amazon’s logistics experience, making the Amazon have a strong competitive advantage in China.

According to Jiang & Prater (2002) said, China’s distribution system is becoming more open since China joined WTO, more privileges in the distribution have been granted. According to statistics, currently there are 40,000 commercial web sites, including more than 700 online stores. A large number of e-commerce projects launched almost every day in all kinds of e-commerce consulting website, the birth of online store, online mall and online auction.

The situation of China e-commerce market especially B2C mode e-commerce is particularly intense competition in the B2C field, Jingdong Mall, Dangdang, Tiger Tesco, Lok etc., coupled with the traditional plan move closer to e-commerce plan, such as Gome online Mall, Suning Tesco.

Amazon’s logistics is digitized, as the interviewer Mr. Wong stated, such as product data ingestion and categorization, demand forecasting, inventory allocation and fraud detection. Rule-based systems can be very used successfully, but they can be hard to maintain and can become brittle over time. In many cases, advanced machine learning techniques provide more accurate classification and can self-heal to adapt to change conditions. For example, the search engine employs data mining and machine learning algorithms that run in background to build topic models, and also apply information extraction algorithms to identify attributes and extract entities from unstructured description, allowing customers to narrow their searches and quickly find the products. At the same time of Amazon.com with the help of information technology started expands the larger business, have more product categories including almost all kind of products in a business, such as toys, cosmetics, videos, cloth, electronics, homes et cetera. From the Amazon.com annual report in 2010, the Amazon’s technologies are almost exclusively implemented as services: bits of logic that encapsulate the data they operate on and provide hardened interfaces as the only way to access their functionality. This approach reduces side effects and allows services to evolve at their own pace without impacting the other components of the overall system. Service-oriented architecture (SOA) is the fundamental building abstraction for Amazon technologies.

Thanks to a thoughtful and far-sighted team of engineers and architects, this approach was applied at Amazon long before SOA became a buzzword in the business. Amazon’s e-
commerce platform is composed of a federation of hundreds of software services that work in concert deliver functionality ranging from recommendations to order fulfillment to inventory tracking. For example, to construct a product detail page for a customer visiting Amazon.com, the software calls between 200 and 300 services to present a highly personalized experience for that customer.

4.2 LOGISTICS SYSTEM USED IN AMAZON.COM

So for this part, Amazon China has a mixed logistic system; use the Third-Party Logistics, “postal injection” and their own logistic department. That is different from Amazon in other countries. The “postal injection” means the Amazon China using China Postal Express & Logistics is an important way of delivery. That the China Post Express & Logistics is developed based on China Post, so the shopping products can delivery to customers all over the China, like mail service. Then it satisfied a range number of customer’s needs in China which have the huge population in a vast territory.

Their own logistics department: Beijing Joy Delivery service co.Ltd. It is Amazon China’s own distribution company. But it cannot cover all the cities in China; therefore, Amazon cooperated with 3PL to satisfy the customers that Joy Company cannot cover. The delivery process is not mandatory (fixed by Amazon); the customers can choose their own ways to get the package. For instance, when customer want an urgent overnight mailing, is able to choose 3PL as a fast way. Besides, post office is also used as a 3PL to make sure customers can get the goods wherever they are.

4.2.1 THIRD-PARTY LOGISTICS

According to an interview with Mr. Wong, third-party logistics is an unpalatable part in Amazon’s logistics system. The 3PL focus on delivery customer by using other transportation. For Amazon.com, they use integration of third-party logistics of e-commerce operator, large-scale, intensive operation, mutual collaboration and increase efficiency. Amazon.com leads third-part-logistics as the elements of e-commerce as logistics operations.

Outsourcing distribution can reduce the investment with lower business risk, stated by Mr. Wong. Amazon has a long-term partnerships to help Amazon have time to open up new
business, focus on the development of competitive advantage. So as interviewer’s opinion, third-part-logistics can help Amazon to develop e-commerce business.

But, even though, Amazon also think the third-party-logistics has shortcomings, 1. Enterprise reduces the control knowledge of logistics; 2. There is a risk of the companies’ strategy information will be leakage; 3. the third-party-logistics will not fulfill some customer’s needs.

Through the interview with Mr. Wong, even Amazon has the contact with the outsourcing logistics company to ensure the smooth transportation, some postpone and speculate problem still exist. For this kind of problem Amazon.com has a set of regulations to protect the profit of a business: depth optimization/specification third-party handing/transportation system, strictly enforce the management regulations, regular safety and common sense education and assessment, transport process takes place traffic accident on a contractual basic to assess the damage/insurance/payment procedures.

According to the interviewer Mr. Wong, when unexpected postpones and speculates accident happens, the company has also made the countermeasures for the problems that happened on the third-party-logistics. The unexpected postpones and speculates could be subjective or objective, the subjective delay will be performed in accordance with the applicable rules and regulation in the business. if goal delay happens, the business need be aware of the conditions promptly, then analyze the particular events to communicate with customers and actively processing.

4.2.2 OWN LOGISTICS

A big advantage of Amazon system is their own logistics department. But this advantage is based on the situation for big cities. The cities with the big people and multi centers are how we called big cities. The orders are randomly form many places in the city, so it is better to have their own logistic company, it is easier to manage. Their own logistics department: Beijing Joy Delivery service co.Ltd is Amazon China’s own distribution company. This company belongs to Amazon China and most of delivering done by Joy Company. The company is a responsibility for receiving merchandise and delivery to customers.

4.2.3 INVENTORY
In Amazon’s logistics system, the location of inventory is an important aspect that impact the delivery time.

The Amazon.com allows the international business is usually based on the supply warehouse arrangements; the national storehouse will be arranged in accordance with the region and the supply situation. Create a different distribution center, according to different categories of goods and increase the operating efficiency of the distribution center. Amazon's distribution centers are set up by commodity groups, different products from different distribution centers for distribution.

Amazon tries to “simplify” the transportation by using the Amazon’s own logistic department to transport in the region. The service for customers can be realized quickly. So Amazon’s distribution center could increase the operating efficiency and create a different distribution center according to the different categories of goods, simplified and standardized to reduce management and running costs.

The thesis will take Beijing as an example to study the transportation where the interviewer Mr. Wong works. Here is a picture of the warehouse distribution of Amazon.com in Beijing. Which the red mark ABCD are the warehouses location in Beijing.

Figure 4: the warehouse distribution of Amazon.com in Beijing (2012)

From the figure we can see, the four warehouses are rational distributed in four directions from the center of Beijing city.
In Beijing or other first-tier cities: the zero inventory at the lowest level and zero library operation. Amazon through a good cooperation relationship with a supplier is to achieve effective control of inventory. On book selling, Amazon’s book list has stored only 200 best-selling books. Under normal conditions, a customer places an order Amazon purchase from the publisher where the customer will pay with a credit card at that time. Amazon.com has 46 days after book sales payment to the Press, and it maintained a smooth turnover of the flow of funds.

Besides, the common area is not the pursuit of zero inventories but to switch to mixed mode. For the high-demand products Amazon.com hold large inventories. For the inventories which are low demand products, bulky or difficult to custody may be managed by the partners. That means Amazon needs a strong logistics and transportation to keep the products in stock that a company can delivery to customer immediately and unbroken. And that also will cause some problem on the transportation part.

Amazon operates the "combination packaging" technology, the expansion of transport scale. When the customer confirms the order on the Amazon website, you can quickly see the Amazon sales order according to customer goods issued stock, and the choice of shipping methods. Estimated delivery date and delivery date information. Amazon built distribution centers according to commodity groups at different places, so different customers ordered goods are issued from different distribution centers located in different locations of China. Amazon's distribution centers only keep a small amount of inventory, so after the receipt of customer orders, Amazon Yuyao distribution city list. If the distribution center is not in stock, we should, as a supplier orders. Therefore will result with an order of goods, and some can be shipped immediately, while others need to wait. In order to save the customer waiting time, Amazon recommends that customers do not need to wait when ordering goods and stock of goods with an order.

When transport the goods to consumers, the Amazon.com has a principle, and that is priorities of the points, to sort out the goods in accordance with requirements to optimize the delivery timeliness. But the weather conditions, transportation way and transportation time all will affect the Amazon’s running. So the GPS positioning unified control, warehouse layout of well-known road and weather features are the countermeasure for the transport problem.
The last stream of B2C mode e-commerce is delivery the products to consumers. This part Amazon.com very care about and that Amazon.com think it is a competitive advantage by use their own logistics sector and get a direct feedback from the consumers.

Based on different categories of product build the different delivery city could increase the effective, simplification the process and reduce the manage/running cost. Right now the outsourcing delivery logistics is so far, so good believed by Amazon China. The long-term goal is to reduce the returned rate which is a win-win strategy, if the company doing well, the delivery company can get more orders, and the delivery company doing well can gain more orders from customer. If there are some problem comes during the logistics process, the insurance company will take the responsibility for it, and the online-shopping companies are totally saved a lot of worries. Currently the returned rate is 0.25% for Amazon.

4.2.5 RETURN PROBLEMS

Return problems is also a shortcoming of E-commerce. E-business usually does not have the real stores; the customer only can get product information through webpage. It probably has some differences in color and shape. So when customer gets the real product in hand maybe not satisfied. And through Amazon’s policy, the customers have to pay it and sign it before open it, and if the customers don’t satisfied product, the return process must through online application or call the customer service. For some particular kind products like cameras, customer must show the appraisal report of damage to prove it is not customer’s fault. And the appraisal report usually takes more time than the return time limit. It is very troublesome for some customers. This is the main reason that some customer wouldn’t choose the E-commerce. It is hard to take the risk. Also, in China, there is no an especially related law for the E-business disputes. So once the problem occurs, it’s hard to judge. Even if a customer sues the company, court will not take the case of small product. So it is a very significant hinder of E-commerce’s development. E-commerce’s security is a big issue, the information problem, internet safety or payment safety and also the personal information in third-part logistics. This is a bottleneck of E-business development. The customer who did not have a computer since education was not very clear about the company security problems. How safe does the password and how to keep personal credit card information security was the common problems. So, it leads that many customers worried a lot when they were developing the E-commerce. In the other hand, as an E-commerce company, there is no set method to keep customers’ information absolutely safe, so it limited the development of E-COMMERCE-commerce.
4.3 COMPETITORS OF AMAZON.COM

A competitor of Amazon.com is Jingdong Mall, which is a success B2C model e-commerce in china. We had interview Jingdong mall from the customer service. Their logistics is the mixed model. Firstly, if the ordered products are having in the list, they directly delivery to the customer. If it not, the company will contact to the supplier to procurement and then there is a third-party logistics company in charge of following services. The delivery is responsible by outsourcing company which can both increase invest and increase the managed risk as they said.

They have the exactly same mode of logistics and online-shopping design with Amazon.com. But the service sectors do not have a law or any protection for the property, and the requirements of customer’s service are variety, so it is very easy to imitate.

For this situation, the interviewer from Amazon.com said, the type of service is not protected by intellectual property. In addition, it can be copied easily, and customer demand for the type of service is the variety. So what 3Amazon.com can do is analysis customer needs, as far as possible to optimize and reduce the return rates.

5. ANALYSIS AND DISCUSSION

In this chapter, we developed the questions that we had in the theory section, and based on the purposes to make a clear structure. We combine the theory and findings from the case company.

5.1 WHAT ARE THE COORDINATION MECHANISM BETWEEN E-COMMERCE AND LOGISTICS IN AMAZON?

In the past, people didn’t recognize the importance of logistics in e-commerce development. (Ying 2006) Lack of knowledge that logistic should be changed in the e-commerce environment. Also believe logistics is still via the traditional distribution channels for most goods and services. However, with the further promotion and use of e-commerce, the lack of logistics’ capability influence e-commerce’ development and become increasingly evident.
Logistics and the value of e-commerce are more and more get people’s attention. But what is the relationship between e-commerce and logistics still need people to explore?

5.1.1 HOW DOES THE LOGISTICS HELP DEVELOPING AMAZON'S E-COMMERCE

Cho, et.al. (2008) understand the relationship between e-commerce and logistics is: the contradictions of the logistics itself to develop e-commerce’s development and e-commerce is precisely to provide a means to resolve this contradiction; in turn, e-commerce contradiction solution also need logistics to provide a mean for, a new economic model requires new logistics model. Amazon China with the help of experience from U.S. business has a strong logistics experience. Because Amazon has a logistic's department of their own, the departments focus on delivering goods to customers by Amazon’s own employees and then get a direct feedback from the customers. So improve the benefits of branding are much important in China than using outsourcing companies that can strengthen the confidence from clients. Customers are the god of business. With the help of feedback from a customer, Amazon can understand customer’s needs quickly, and then satisfy customer’s needs quickly than competitors. When the branding benefit set up, more and more customers choose Amazon as the first option, help to improve Amazon’s business.

As Fjermestad & Allen (2001) mentioned, logistics is a means of Amazon promotion: in the difficult times of e-commerce, Amazon launched the innovative and bold marketing strategy, to provide customers with free delivery service, and continue to lower the threshold for free shipping. So far, Amazon has been using three times of the approach to take such promotions. The two previous free shipping thresholds are $99 and $49. In august of 2001, Amazon lowers the free shipping threshold again; every customer who has shopped over $25 can get a free delivery service, in order to improve the growth of sales. Free shipping greatly inspired the enthusiasm of the people’s consumption, so those people who are doubt, worry about the expensive online shopping will quick to join the ranks of the Amazon consumer. That make Amazon’s customer base expanded to 4,000 million. The resulting huge economic benefits: the sales of books, music and video products in the third quarter of 2001 increased by 17%. Logistics impact and increase the sales, the saying “logistics, is a tool of business competition” get a best explanation in the business practices of the Amazon.

Amazon.com is a global business, so they desire to improve system capabilities along the global supply chain also desire to build flexibility with available resources. So with the help of outsourcing distribution, these are going to be happened. Concentrate to the development
of the main and core business. This can reduce investment, reduce business risk, and can take full advantage of the benefits of professional logistics companies, logistics cost savings. As interviewer Mr. Wong stated, outsourcing distribution can reduce the investment with lower business risk. Third-part-logistics business also can provide Amazon company professional transportation services. After solving these problems, Amazon will be able to have time, money and energy to develop new competitive advantages and technology of e-commerce. Although what Mr. Wong told us, Amazon has realized how important outsourcing logistics is in china, since the long time ago.

A usually logistic way for Amazon in China is “Postal injection”, use their own freight car or independent carriers, transport the ordered goods from Amazon’s warehouse to the local post office warehouse, and deliver the goods to customers by the post office. As Wu (2005) suggested, postal injection way in China is can remove the post office on the commodity handler, provide convenient conditions for the post office to send goods, but also save money for themselves.

Consider the "combination packaging" technology, the expansion of transport bulk. When the customer to confirm the order on the Amazon website, customers can quickly see the Amazon sales order according to customer goods issued stock, and the choice of shipping methods. It is very convenience for the people who working at day time, they can choose to delivery at weekend. It is a humanized logistic design for consumer. Estimated delivery date and delivery date information. Amazon distribution centers according to commodity groups to create different, so different customers ordered goods are issued from different distribution centers located in different locations of China. Amazon's distribution centers only keep a small amount of inventory, so after the receipt of customer orders, Amazon Yuyao distribution center inventory will automatically check if it is in stock. If the goods that a customer ordered are not in stock at the distribution center, the company should become the orders to supplier. Therefore, some can be shipped immediately, while others need to wait. In order to save the customer waiting time, Amazon recommends that customers do not need to wait when ordering goods and stock of goods with an order. Such delivery, the carrier can speak from a different customer, and want the same category, the city also have a stock of goods fitted shipped within the Consent lorry. So shortening the waiting time after the customer orders and also expanded the bulk of transport, improve transport efficiency, and reduce transportation costs. For an e-commerce business, this logistics is a completed benefit.
5.1.2 How Does the E-Commerce Helps Developing Logistics System?

The development of e-commerce provides a lot of influences to logistic system, like logistics volume, efficiency, economic benefit, the impact for companies and customers and the power to third part logistics.

According to Slywotzky, et.al. (2000), Amazon’s E-commerce is the lifeline of logistics development. Amazon book store was the pioneer B2C business, and develop quickly, so that the customer knows about this new business model. Firstly, there is a free delivery base on the minimum consumption, then this minimum consumption getting lower and lower, so this activity aroused the enthusiasm of the consumed. There for the customer who doubles about e-commerce or worried about online shopping, are quick to join into Amazon consumer, which generate huge economic benefits. Logistics is a competitive tool of enterprises.

E-COMMERCE-E-commerce is based on modern information technology and computer networks as the basis for foods and service transactions, transparent, trading virtualization, low cost high efficiency features. In the E-commerce, information flow, business flow, capital flow of projects through the computer completed online, but only logistics operation as a real process. Therefore, as the e-commerce part of the logistics will become a key factor in determining the effectiveness of e-commerce. In the E-commerce, if logistics do not develop well, low efficiency, poor quality, then the E-commerce economy, convenient and quick benefit are no longer exist. Increase the logistics system is to determine the lifeline of E-commerce survival and development. Analysis the reasons for the failure of many E-commerce companies, a large part are due to logistical failure. Amazon’s success is also due to its success in the logistics. Although Amazon is an E-commerce company, but its logistics system is complete, is not inferior to the real selling business. Increase the optimization of logistics system as a security to logistics as a method of promotion, and has the ability to control the operational organization of the logistics cost and effective logistics process. Slywotzky, et.al. (2000).

After all, Amazon’s one of the most important points is that logistics plays a vital role in the development of electronic commerce. China’s E-COMMERCE-e-commerce companies in the development of business can be a development strategy of logistics as a business. Planning the proper logistics system, efficient logistics organization and operation, then the Chinese E-commerce enterprises will not far away with Amazon. Slywotzky, et.al. (2000).

A thorough logistics system is the lifeblood of e-commerce: e-commerce is based on modern information technology and computer networks, to allow goods and services transactions
happen. Have trading virtualization, transparent, low cost and high efficiency features. In e-commerce, information flow, business flow, capital flow of projects can complete through the online computer. But logistics operation needs the real process, not like the information flow, capital flow. Therefore, logistics as the e-commerce part will become the key factor in determining the effectiveness of e-commerce. In e-commerce, if the logistics need efficiency and has poor quality, the e-commerce’s convenient and quick benefits will no longer exist. We found some reasons of many e-commerce business failures from some literatures, in large part, it due to logistical failure. Amazon’s success is also due to the success in the logistics. Although Amazon is an e-commerce company, but its logistics system is excellent, is not inferior to the entity logistics companies. (Fjermestad & Allen, 2001)

E-commerce has provided a broad space for development as one of the important industrial mode of operation in the new era, for third-party logistics. Meanwhile, third-party logistics and e-commerce integration provided a guarantee for the realization of electronic commerce. But from the time the operation situation of view, the integration of third-party logistics and e-commerce in two ways: one is the third-party logistics as the elements of e-commerce as logistics operations, complete logistics chain in B2B or B2C e-commerce; the second is a third-party logistics by building their own information network system for e-commerce companies and their customers to provide information exchange trading platform track to work closely with e-commerce and logistics. For Amazon.com, third-part-logistic definitely is used in the first way.

5.2 WHAT ARE THE STRENGTHS AND SHORTCOMINGS OF LOGISTICS IN DEVELOPING E-COMMERCE?

5.2.1 WHAT ARE THE STRENGTHS OF LOGISTICS IN DEVELOPING AMAZON’S E-COMMERCE?

Through internet gathers the product information will reduce the steps of buying, easier to choose the optimal and compare the difference. In this model do not has the real store for selling so all the process will finish in a shortest time than other companies. For the customer, Amazon has a minimal consumer price for the free delivery, it is very convince for some customers. If the customer was worry about the quality or delivery, after one satisfied shopping experience, will trust and start e-commerce shopping. Amazon was the first famous E-commerce company in China, the systemic logistics and it promoted the development of E-COMMERCE-commerce in China. Logistics as a promote design is very important in the buying process, Amazon always finding the best way to combine different needs. Amazon’s
logistics centre is based on the customer’s requirement. For a company, own logistics centre resources cost a lot, because the customer distribution are not very clear. But is very important for control the customer’s experience. So Amazon broke the traditional geographic limit, have the logistics centers, from big cities to small cities. It saved delivery time, prominent features of electronic commerce. Amazon also owns the logistics technologies: Electronic ordering system, Electronic Data interchange and Electronic customer response, those all the reason that bring costume into a good experience of E-commerce. Logistics is the foundation of developing E-COMMERCE-commerce, and Amazon is the one who made the E-commerce logistics system.

Amazon has the E-commerce Alliances. E-commerce does not have a “product” department or “innovation” department for products. Alliances with other e-commerce companies can increase the attractive of customers. Appear of alliance makes the B2C business model efficiently share the resources and use the resources, for example, logistics resources. B2C design is only in the selling and customer service position in the supply chain so the resource alliance could strengthen the competitive advantages. In the other hand, the company offers more options are a good reason to choose E-commerce. It saves time and money.

Amazon can get the feedback very fast, and base on the feedbacks, business can get the further information about the improvement service. The comments are right behind the product; customer can refer it before buying and the company can also refer it for improving commodity classifications. It makes service quality improved; customer’s always can find the newest and best product they want. Once the customers needs been satisfied, it is easier to develop and expand E-commerce.

5.2.2 WHAT ARE THE SHORTCOMINGS OF LOGISTICS FOR DEVELOPING AMAZON’S E-COMMERCE?

Although E-commerce develops quickly, but the drawbacks are also loom largely. Logistic is the most important part in the E-business; it could affect the final result of the transaction, and it the most concerned part of the customers. Currently the Amazon’s logistic system still not perfectly for some customers, it may have affects on customer’s enthusiasm. And if the logistic disappointed the customer, it is hard to keep them buy again. The shortcoming in Amazon’s logistic is the limitation. Some kinds of products like liquid, cosmetic and electronics are not allowed for international transport. Right now Amazon only supports few particular products for international delivery, such as books, videos and games by the
combination with UPS and DHL, the Amazon’s webpage has all the information of countries, products, time and prices. The other limitation is during the vacations. In china people likes shopping a lot. For the customer who wants shopping on internet may more concern about delivery. And in vacations suddenly increase orders may cause the problems like delivery delay. Also, the return department will not as efficient as usual.

6. CONCLUSION

6.1 SUMMARY

Now we can back to our plan, and discuss how we fulfilled it. The purpose of the thesis is to explore the relationship between e-commerce and logistics in B2C (business to consumer) companies. To fulfill our purpose we used 3 aims to achieve the purpose better. They are: i. Describe the coordination mechanism between e-commerce and logistics in general and particularly in Amazon.com. ii. Find out the strengths and shortcoming of logistic business when a company is developing e-commerce. iii. Figure out ways to coordinate logistic when developing e-commerce and explain how Amazon.com is developing e-commerce.

Amazon China has started to get attention of this coordination, and also it has been well popularized. The development of logistics is an important part of e-commerce, and an essential part to meet customer needs. Coordination between the two industries is still not strong enough, we will need the integration of companies, employees and the e-commerce company.

In order to fulfill the three aims, pertinent literature is described. Relevant literature is reviewed on the theory to have an insight of ideas in e-commerce, business-to-customer (B2C) e-commerce, logistics, and third-party-logistics (3PL). Besides, for a clear structure of our thesis, we break down two research questions respectively into some sub-questions, and then relevant data are collected, and analysis methods are performed by based on different questions.

We found Amazon China has a mixed logistics system. Their own logistics department: Beijing Joy Delivery service co.Ltd, but it cannot cover all the cities in china. And third-party-logistics: The area that Joy cannot cover then 3PL will be used, like customers want an urgent overnight mailing. Amazon creates a different distribution center, according to different categories of goods and improves the operating efficiency of the distribution center. Amazon's distribution centers are set up by commodity groups. Amazon tries to simplify the
transportation so let logistics is transportation by using Amazon’s own logistics area in the region. One more reason that Amazon uses their own logistics department; Amazon very care about the delivery, consider it as a competitive advantage by use their own logistics area and get a direct feedback from the consumers. Then increase the business by the feedback from consumers.

For the shortcoming of logistics, some measures can be used. Strengthen the theory of modern e-commerce and logistics, and absorption of foreign advanced ideas, theories and techniques. Amazon can learn the results of research from other countries’ logistics management to encourage the theoretical circle in e-commerce and logistics challenges. Detours and try to take shortcuts, to speed up the pace of e-commerce logistics development in China. Furthermore, the positive development of the network, logistic service system is useful.

When developing e-commerce a complete logistics system needs to be built to satisfy customer’s needs. At the same time, with the developing of logistics system, e-commerce companies can be saved. For companies, more technological logistics system is needed, and put service sector in an important place.

6.2 PRACTICES IMPLICATIONS AND FUTURE STUDIES

Through this study, we practiced many research design included qualitatively with data collection and analysis. We know more and better how to arrange a complete case study in a logic way. We also learn how to deal with the primary and secondary data and select the relevant data for our case study. To fulfill this study, we had to study many relevant articles and do the literatures review. That all helped us understand the concepts of e-commerce and logistics, especially the B2C e-commerce and 3PL. practice the idea into real case company. Also, we improved the skill of commutation through the interviews. For the managers in e-commerce or logistic company, they have to realize what is the most important thing for their company own development in a long-term scale, and also they should balance the relationship between logistics and E-commerce. To offer a service of delivery is not just about sending items to customers, but satisfy customer needs with a good attitude.

For the future studies, a good proposal is very necessary before we start a study, which will give a clear structure that we can follow step by step. Keep close contact with supervisor is important for the whole study work, because any uncertain query can have a quick answer. A good communication with partner is also very important for the future study. When we explore the study, even we did not plan to explore the relationship between customers and e-
commerce companies we still found the customers is one important factor that we should consider about. So it might be a good resource to know if someone else wants to the study on the same area.

7. REFERENCES


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Zifan Wong, manager of logistics department


Xiaoou Pan, Logistic associate director, Amazon china, interviewed 2012-05-13, during one hours.


APPENDIX

Interview questions

Interviewer Xiaoou Pan, the Logistic associate director
Interviewer Zifan Wong, manager of logistics department

Primary questions for the two interviewers

1. Could you please introduction yourself?

2. What’s your job title and major responsibility in the company?

3. How long have you been working in the company?

4. Can you introduce the company?

5. Can you introduce the company’s operation flow?

6. Can you introduce the transport types of your company?

Questions about coordination mechanism between e-commerce and logistics (interviewer Mr. Pan)

1. Do you think logistic is important for your company running?

2. What do you think if your company without logistic?

3. What’s your opinion about logistics’ advantages for you company?
4. Do you believe your company’s development is helped by developing logistic?

5. Do you think your company is helping logistic develop?

6. Can you talk about your opinion about the coordination mechanism between e-commerce and logistics?

Questions about the strengths and shortcomings of the logistic in developing e-commerce (interviewer Mr. Pan)

1. Do you think logistic system has shortcomings for your company’s development?

2. If it has, what shortcomings do you think they have?

3. Do you think a logistic’s system has strengths for your company’s development?

4. If it has, what are the strengths do you think?

5. What is the biggest threat in logistic, in your opinion for you company’s operation?

6. What’s the bottleneck of logistics does you think for your company?

Questions about logistic (interviewer Mr. Wong)

1. Introduction how the Amazon works in the logistic part

2. Does the company owns the logistic sector?

3. Does your company use outsourcing logistic?

4. How do you think of the logistic outsourcing for your company?

5. Do you think it’s a coordinated way for your company by using third-part-logistics?

6. How to solve postpones and speculates accident of third-part-logistic?

7. How can you keep third-part logistics safe? what about the accident happens?

8. How to differentiate distribution of warehouse
9. Have we taken advantage of the full potential for postponement and speculation, standardization, consolidation, and differentiation in our logistics programs?