

An Analysis of the Resolution of Disputes in E-contracts using Multiple Analysis Methods^{1, 2}

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ABSTRACT

This article's aim is to analyze the causes of disputes in E-contract and the alternative solutions to these disputes. There are three questions presented to promote the analysis which are how do buyers and sellers reach a consensus in a dispute? In the dispute, how to maintain the legal status of buyers and sellers equal? What is the most notable problem in dispute resolution? The analysis is carried out by **the cause and effect diagram in root cause analysis, the Non-Dimensional Scaling Technique, a Non-Compensatory approach, the additive weighting technique and the Pareto analysis.** After analysis, six resolutions for resolving e-contract disputes have been proposed, and it is found that Buyer resolves independently is the best solution.

Keywords: E-contract, causes of disputes, e-contract disputes, conflicts, alternative resolutions

INTRODUCTION

"Nowadays with China's e-commerce develops rapidly, the numbers of e-contract disputes increase significantly"³. "Only in one province of China, Guangdong Province from 2011 to 2013, the average annual growth rate of e-contract disputes was 24%, and the average annual growth rate of new types of cases has reached 75%."⁴ The data showed that from May 2014 to April 2015, the E-commerce Trial Collegiate Panel in Guangdong "had accepted 19 e-contract dispute cases and concluded 14 cases;"⁵ And from May 2015 to April 2016, 266 cases of the same type

¹ Editor's note: Student papers are authored by graduate or undergraduate students based on coursework at accredited universities or training programs. This paper was prepared for the course "International Contract Management" facilitated by Dr Paul D. Giammalvo of PT Mitratata Citragraha, Jakarta, Indonesia as an Adjunct Professor under contract to SKEMA Business School for the program Master of Science in Project and Programme Management and Business Development. <http://www.skema.edu/programmes/masters-of-science>. For more information on this global program (Lille and Paris in France; Belo Horizonte in Brazil), contact Dr Paul Gardiner, Global Programme Director, at paul.gardiner@skema.edu.

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³ Nanfang Daily. *10 e-commerce disputes involving 7 online shopping*. Retrieved from <http://tech.sina.com.cn/roll/2017-06-19/doc-ifyhfp5274601.shtml>

⁴ Nanfang Daily. *10 e-commerce disputes involving 7 online shopping*. Retrieved from <http://tech.sina.com.cn/roll/2017-06-19/doc-ifyhfp5274601.shtml>

⁵ Nanfang Daily. *10 e-commerce disputes involving 7 online shopping*. Retrieved from <http://tech.sina.com.cn/roll/2017-06-19/doc-ifyhfp5274601.shtml>

were accepted and 192 cases were concluded; From May 2016 to April 2017, 107 cases of the same type were accepted and 148 cases were concluded ⁶. Among these e-contract cases, the online shopping contract disputes accounted for more than 80%, and the remaining balances were other disputes such as intellectual property rights violations and privacy violations. In view of the large proportion of online shopping contract disputes, this report mainly emphasis on the analysis of the causes of online shopping contract disputes.

Generally speaking, the causes of e-contract disputes are numerous, however the dispute causes are mainly concentrated, and there are certain commonalities. Therefore, by the help of data in recent years, the causes of e-contract disputes are principally determined and classified into the following four categories according to their characters: seller related, buyer related, contract related, third party related. There are sub categories (11 in total) for each cause, which will be further studied according to **the cause and effect diagram in root cause analysis** (see figure 1).

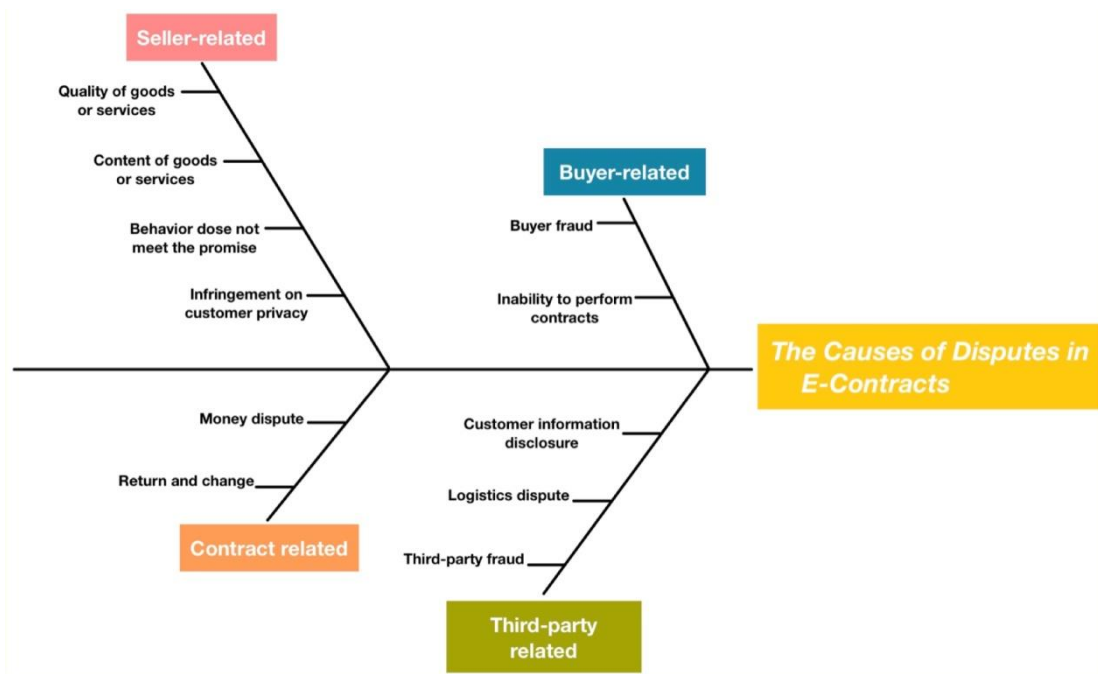


Figure 1. Cause-and-Effect diagram⁷

E-commerce can facilitate people's lives which is a manifestation of social development and progress. However, in the process of e-commerce transactions, conflicts are inevitable because of the different positions and opinions between the contract parties, and if conflicts are not resolved in time, it is easily to convert into disputes. Disputes of e-contract belongs to the scope of e-commerce projects, and their existence are a crucial obstacle to the completion of e-commerce projects to some extent. But according to Fenn et al. (1997) "conflict and dispute are two distinct notations. Conflict exists wherever there is incompatibility of interest. Conflict can

⁶ Nanfang Daily. *10 e-commerce disputes involving 7 online shopping*. Retrieved from <http://tech.sina.com.cn/roll/2017-06-19/doc-ifyhfp5274601.shtml>

⁷ By Author.

be managed, possibly to the extent of preventing a dispute resulting from the conflict" ⁸. Hence, analyzing the causes of disputes could promote the exploration of the underlying source of conflicts, which can help e-commerce managers to evade and manage, also helps to improve the e-commerce project contracts and regulations. Thus it will promote the completion of electronic projects and alleviate the current sudden increase in the number of electronic dispute cases in China to a certain extent.

This article aims to analyze the causes of conflicts in e-contracts and provide solutions. To achieve this goal, detailed analysis will be conducted in the following articles. At the end of the article, readers will have a clear and crystal understanding of the causes of disputes in e-contracts. And more importantly, this article will provide practical suggestions and solutions in order to obtain better solutions of the e-contract disputes in actual e-commerce projects.

METHODOLOGY

STEP 1: Summarize

As stated above, the purpose of this article is to analyze and resolve e-contract disputes. There are three main problems to be solved:

- How do buyers and sellers reach a consensus in a dispute?
- In the dispute, how to maintain the legal status of buyers and sellers equal?
- What is the most notable problem in dispute resolution?

Through the analysis of the preceding parts and related data, it can be concluded that the disputes in the e-contract are mainly the disputes in online shopping contracts, and the disputes in online shopping contracts mainly come from the buyers' appeal to sellers, including the quality dispute of goods or services, the content dispute of goods or services, the behavior of the merchant does not meet the promise, and the merchant infringes the privacy of the customers.

⁸ Emre Cakmak and Pinar Irlayici Cakmak. *An analysis of causes of disputes in the construction industry using analytical network process*. Retrieved from <https://www.sciencedirect.com/science/article/pii/S1877042813050738>



Figure 2. Reasons for the Buyers' Appeal⁹

It is described that "Online fraud has become one of the most serious violations of consumer rights in online shopping."¹⁰ The above figure 2 is an incomplete statistical chart of "Reasons for the Buyers' Appeals" based on seller's fraud. In these 81 lawsuits of seller's fraud, there are five main reasons, which is revealed in the above chart. In those cases, sellers' "False Promotions" covered half of the cases which were prosecuted by the customers.¹¹

On a global scale, the problem of "seller's fraud" also exists, such as poor image, Suspicious Reviews, and broken. In India, "The complaints in the sector are around deficiency in services, misleading advertisements, fake products and payment issues."¹² In addition, there are problems with the method of the online shopping payment and unreasonable design of shopping website. However, these are not the main online shopping disputes in China.

Nowadays, China's e-commerce projects are exploding in the global arena. "As the world's most populous country, China's GDP grew by 164% from 2003 to 2013 (Bloomberg Businessweek), its explosive influence in the Asia-Pacific region is obvious. In the 2014-2017 China Internet Economy Forecast Report, iResearch expects predicted that e-commerce income would rise from 77 billion Euros to 218.3 billion Euros in 2017, a growth rate of 183% overall."¹³ "There is also

⁹ Sohu. 2016 data analysis report on online shopping contract disputes. Retrieved from http://www.sohu.com/a/129387186_394074

¹⁰ Qiuzhen Qiao. *The legal problems and perfection in online shopping*. The law applies, the 2nd Periodical, 2010.04

¹¹ Sohu. 2016 data analysis report on online shopping contract disputes. Retrieved from http://www.sohu.com/a/129387186_394074

¹² Mugdha Variyar, Varsha Bansal, ET Bureau. *Consumer complaints may surge 20% in season of ecommerce sales*. Retrieved from <https://economictimes.indiatimes.com/small-biz/startups/newsbuzz/user-plaints-may-spike-20-in-season-of-ecommerce-sales/articleshow/66269040.cms>

¹³ Landmark Global. *The world's fast-growing e-commerce market*. Retrieved from https://landmarkglobal.com/zh_CN/trends-

considerable growth space in India, with online buyers not reaching 25%, and only one in six Indians is online (Forrester Research). No wonder eMarketer expects an average annual e-commerce sales growth of 25% by 2017.¹⁴ eMarketer expects Mexico's e-commerce to grow 15% and 10% in 2015 and 2016, respectively. Mexico spends a lot of money on the website to make "limited time buys" (a lot of discounts), but a large number of buyers will also spend a lot on high-end goods (Forrester).¹⁵ "Canada is the leading provider of e-commerce growth in North America, with an estimated 14%, 13% and 12% growth (eMarketer) by 2017. Italy is also growing beyond the national economic growth trend, with growth expected to be 14%, 12% and 11% (eMarketer) by 2017. Russia is also growing rapidly, with growth rates expected to be 17% and 11% (eMarketer) in the next two years."¹⁶ Under such a trend, the disputes in the e-commerce project are bound to hinder its development. Thus, a reliable solution to these e-contract disputes proposed and further analyzed is imperative.

STEP 2: Feasible Alternative Solutions

The most common online shopping disputes in China are the following six types, the first three of which belongs Online Dispute Resolution Mechanism (ODR) and it's emerging in recent years. The latter three are the traditional dispute resolution methods.

1. Buyer resolves independently: This is a way for the buyer to resolve disputes autonomously. "The online shopping platform will provide management tools such as complaint forms."¹⁷ The buyer will choose the goods or services of the dispute, the processing methods required by buyer, the reasons for the dispute, etc. , then the buyer submits the application and waits for the system to forward the form to the seller for processing. Later the buyer will wait until the seller processes the dispute, and the transaction will enter the dispute resolution stage.

2. Negotiate with the seller: This is a method for the buyer and the seller to communicate in a network environment voluntarily and equally to find a solution for the dispute. In general, the buyer put forward problems and provides proof, and the seller proposes solutions. "Both buyers and sellers should aim to get the best possible agreement for both but each party has different

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¹⁴ Landmark Global. *The world's fast-growing e-commerce market*. Retrieved from [https://landmarkglobal.com/zh_CN/trends-](https://landmarkglobal.com/zh_CN/trends-insights/%E5%85%A8%E7%90%83%E5%BF%AB%E9%80%9F%E5%A2%9E%E9%95%BF%E7%9A%84%E7%94%B5%E5%AD%90%E5%95%86%E5%8A%A1%E5%B8%82%E5%9C%BA/)

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¹⁵ Landmark Global. *The world's fast-growing e-commerce market*. Retrieved from [https://landmarkglobal.com/zh_CN/trends-](https://landmarkglobal.com/zh_CN/trends-insights/%E5%85%A8%E7%90%83%E5%BF%AB%E9%80%9F%E5%A2%9E%E9%95%BF%E7%9A%84%E7%94%B5%E5%AD%90%E5%95%86%E5%8A%A1%E5%B8%82%E5%9C%BA/)

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¹⁶ Landmark Global. *The world's fast-growing e-commerce market*. Retrieved from [https://landmarkglobal.com/zh_CN/trends-](https://landmarkglobal.com/zh_CN/trends-insights/%E5%85%A8%E7%90%83%E5%BF%AB%E9%80%9F%E5%A2%9E%E9%95%BF%E7%9A%84%E7%94%B5%E5%AD%90%E5%95%86%E5%8A%A1%E5%B8%82%E5%9C%BA/)

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¹⁷ Ying Ding. *Online Solution of Online Consumer Disputes. Taking the Taobao Platform Model as an Example*. Retrieved from <http://www.cqvip.com/qk/89877x/2014002/87687080504849524850484949.html>

goals and roles in the negotiation process.”¹⁸ When the buyer and the seller reach an agreement, the transaction will enter the dispute resolution stage.

3. Complaints to the online trading platform (third-party platform): “The buyer files complaints to the trading platform and providing evidence of the disputes, including physical objects, chat records, invoices, transaction records, etc.”¹⁹ The online shopping platform usually has a corresponding complaint mechanism. If the complaint is true, there will be a severe punishment mechanism within the system to recover the buyer’s losses.

4. Complaints to the industrial and commercial office or the consumer association which have jurisdiction over the network seller: “Basically the same method as complaints to the online trading platform, the buyer provides sufficient evidence of the dispute, and it will be judged by the industrial and commercial office or the consumer association whether the complaint is true.”²⁰ If it is true, there will be a strict punishment mechanism and the buyer’s rights and interests will be safeguarded. The difference between this and the online trading platform complaint is the degree of punishment. The punishment of the network platform is only the punishment within the system, and the punishment of the industrial and commercial office may involve the law.

5. Applying for arbitration to arbitration institution: It is one of the common alternative methods of dispute resolution. “Arbitration is generally a system in which the parties voluntarily submit their disputes to an arbitral tribunal composed of non-judicial arbitrators in accordance with the arbitration agreement between them and are subject to the judgment.”²¹ Arbitration is legally binding. China's "Arbitration Law" stipulates: "Contract disputes and other property rights disputes between citizens, legal persons and other organizations of equal subjects may be arbitrated.”²²

6. File a lawsuit to the Court: “The lawsuit is the special action of the state specialized agency to resolve the specific case activities according to the statutory authority and procedures with the participation of the lawsuit participants.”²³ It is a legal action to resolve the dispute between the buyer and the seller through litigation.

To evaluate each alternative solution, the following eight attributions are proposed according to the buyer and seller's appeals for resolving disputes. By quantifying these attributes, it can also

¹⁸ Karrass. 5 TOP NEGOTIATION STRATEGIES FOR BUYERS AND SELLERS. Retrieved from <https://www.karrass.com/en/blog/5-top-negotiation-strategies-for-buyers-and-sellers/>

¹⁹ Qianlong. How to defend online shopping frauds? There are five ways to complain. Retrieved from <http://china.qianlong.com/2016/1118/1128936.shtml>

²⁰ Qianlong. How to defend online shopping frauds? There are five ways to complain. Retrieved from <http://china.qianlong.com/2016/1118/1128936.shtml>

²¹ Baidu. Arbitration. Retrieved from <https://baike.baidu.com/item/%E4%BB%B2%E8%A3%81>

²² Zhihu. What is the difference between arbitration, mediation and litigation? Retrieved from <https://www.zhihu.com/question/39351327>

²³ Democratic rule of law. Who is trapped in the lawsuit dilemma? Retrieved from <http://www.mzyfz.com/cms/minzhuyufazhizazhi/wenhuayuzixun/html/697/2012-06-20/content-412842.html>

reflect the degree to which these alternatives promote the development of e-commerce projects to some extent.

1. Economical: The measure of how much the buyer and seller in the dispute spends on the cost of resolving the dispute, which mainly refers to the cost of money. Both buyers and sellers of disputes are bound to be more inclined to lower cost. "Consumers in the older cohort (aged 45 and above) are satisfied with the products sold online being cheaper than those in bricks-and-mortar shops, and the products and services meet their expectations."²⁴ Buyers shop online because it's cheap and economical. The same reason, when it occurs an dispute, they wish to solve it economically.

2. Fairness: The attribute of fairness in dispute resolution is important. In the e-contract dispute, the position of buyers and sellers in the market is very different. "Distributed and independent consumers are disadvantaged in the market. For example, corporate merchants are better in collecting evidence and mastering information than consumers, merchants and consumers have serious information asymmetry in online transactions, and there are a large number of format contracts which deprive consumers' legitimate rights, etc."²⁵ Therefore, the definition of fairness here is not an absolute definition of fairness.

3. Intelligence: Alternatives' intelligence can greatly simplify the process of resolving disputes, thus it helps to solve the disputes more concisely and easily. The degree of intelligence is closely linked to the development of technology. "Intelligent manufacturing is a big concept, a large system that is constantly evolving. It is a deep integration of the new generation of information technology and manufacturing technology, which runs through all aspects of the entire life cycle of product manufacturing services."²⁶

4. Antagonism: The disputes must be accompanied with varying degrees of antagonism. And the way to solve disputes can regulate the extent of antagonism. The less antagonistic the dispute is, the easier to resolve it. "The weakening of confrontation helps the two parties to maintain a cooperative relationship after the dispute."²⁷

5. Flexibility: The ability to resolve disputes flexibly. If there occurs an unexpected event in the process of resolving disputes, the flexible solution can be changed quickly and reduce the cost to some extent. "Flexibility lets e-service providers improve their service without costly and time-consuming infrastructure overhauls to cope with the changing business environment."²⁸

²⁴ Consumer Council. *Convenience and Risks Coexist in Online Shopping Consumer Protection Legislations Should Keep up with the Times*. Retrieved from https://www.consumer.org.hk/ws_en/news/press/online-retail.html.html

²⁵ Xin Wang. *Construction of online dispute resolution mechanism ODR*. Retrieved from <http://www.doc88.com/p-6813217018194.html>

²⁶ Ji Zhou. *Intelligent development of "Chinese wisdom"*. Retrieved from http://www.gov.cn/xinwen/2018-05/17/content_5291521.htm

²⁷ Xin Wang. *Construction of online dispute resolution mechanism ODR*. Retrieved from <http://www.doc88.com/p-6813217018194.html>

²⁸ Yan Jin. *E-service flexibility: meeting new customer demands online*. Retrieved from <https://www.emeraldinsight.com/doi/abs/10.1108/MRR-08-2012-0189>

6. Predictability: Whether the result of the dispute can be predicted is another attribute. In resolving disputes, buyers and sellers, especially buyers, are more inclined to accept results that can be predicted. The two parties resolve disputes on their own, inciting by the predictable results to promote the seller to actively seek self-solving. The best effect of the system implementation is self-driven and benign operation, which minimizes execution costs.”²⁹

7. Convenience: The solution of dispute is convenient and rapid or not. Buyers and sellers are bound to be more inclined to spend less energy and strength. “Consumers in the younger cohort (15—44 years old) appreciated that goods arrived on time as well as online shopping's efficiency and convenience.”³⁰ Therefore, buyers also pay more attention to convenience in solving disputes.

8. Timeliness: The timely and efficient dispute solution is another aspect to evaluate. The rapid development of social rhythm makes timely and efficient dispute solution be favored by buyers and sellers. Solving more problems in a less time is an unstoppable trend. “The timeliness of dispute resolution can urge right holders to exercise their civil rights in a timely manner, avoiding the long-term uncertainty of civil legal relations.”³¹

STEP 3: Development of Feasible Alternatives

The **Non-Dimensional Scaling Technique** is done by the chart below. The relevant options turned into a dimensionless value In each attributes, there are six values which correspond to 0,0.2,0.4,0.6,0.8,1. It’s accounted by the formula $\text{Undesirable} - (\text{Worst Case} - \text{Attribute Value}) / (\text{Worst Case} - \text{Best Case})$. It reveals the value of the alternative solution under a particular attribute.

Attribute	Value	Dimensionless value
Economical	Buyer resolves independently	1
	Negotiation with seller	0.8
	Complaints to the online trading platform	0.6
	Complaints to the industrial and commercial office or the consumer association	0.4
	Applying for arbitration to arbitration institution	0.2
	File a lawsuit to the People's Court	0
Fairness	Buyer resolves independently	0.2
	Negotiation with seller	0
	Complaints to the online trading platform	0.4
	Complaints to the industrial and commercial office or the consumer association	0.6
	Applying for arbitration to arbitration institution	0.8
	File a lawsuit to the People's Court	1
	Buyer resolves independently	1

²⁹ Sina Justice. *Taobao's dispute resolution experience and its judicial reference value*. Retrieved from <http://finance.sina.com.cn/sf/news/2015-12-19/152414073.html>

³⁰ Consumer Council. *Convenience and Risks Coexist in Online Shopping Consumer Protection Legislations Should Keep up with the Times*. Retrieved from https://www.consumer.org.hk/ws_en/news/press/online-retail.html.html

³¹ Hualv. *What is the timeliness of debt disputes?* Retrieved from <http://www.66law.cn/laws/251713.aspx>

Intelligence	Negotiation with seller	0.6
	Complaints to the online trading platform	0.8
	Complaints to the industrial and commercial office or the consumer association	0.4
	Applying for arbitration to arbitration institution	0.2
	File a lawsuit to the People's Court	0
Antagonism	Buyer resolves independently	1
	Negotiation with seller	0.4
	Complaints to the online trading platform	0.8
	Complaints to the industrial and commercial office or the consumer association	0.6
	Applying for arbitration to arbitration institution	0.2
	File a lawsuit to the People's Court	0
Flexibility	Buyer resolves independently	0.8
	Negotiation with seller	1
	Complaints to the online trading platform	0.6
	Complaints to the industrial and commercial office or the consumer association	0.4
	Applying for arbitration to arbitration institution	0.2
	File a lawsuit to the People's Court	0
Predictability	Buyer resolves independently	1
	Negotiation with seller	0.6
	Complaints to the online trading platform	0.8
	Complaints to the industrial and commercial office or the consumer association	0.4
	Applying for arbitration to arbitration institution	0.2
	File a lawsuit to the People's Court	0
Convenience	Buyer resolves independently	1
	Negotiation with seller	0.8
	Complaints to the online trading platform	0.6
	Complaints to the industrial and commercial office or the consumer association	0.4
	Applying for arbitration to arbitration institution	0.2
	File a lawsuit to the People's Court	0
Timeliness	Buyer resolves independently	1
	Negotiation with seller	0.8
	Complaints to the online trading platform	0.6
	Complaints to the industrial and commercial office or the consumer association	0.4
	Applying for arbitration to arbitration institution	0.2
	File a lawsuit to the People's Court	0

The chart below is a scoring model. The relative weighting of each attribute has been calculated. It reveals the value of each alternative solution.

Attribute	Buyer resolves independently	Negotiation with seller	Complaints to the online trading platform	Complaints to the industrial and commercial office or the consumer association	Applying for arbitration to arbitration institution	File a lawsuit to the People's Court
Economical	1	0.8	0.6	0.4	0.2	0
Fairness	0.2	0	0.4	0.6	0.8	1
Intelligence	1	0.6	0.8	0.4	0.2	0
Antagonism	1	0.4	0.8	0.6	0.2	0
Flexibility	0.8	1	0.6	0.4	0.2	0
Predictability	1	0.6	0.8	0.4	0.2	0
Convenience	1	0.8	0.6	0.4	0.2	0
Timeliness	1	0.8	0.6	0.4	0.2	0
TOTALS	7	5	5.2	3.6	2.2	1

It can be analyzed that the first alternative “Buyer resolves independently” is excellent to solve the e-contract disputes. The “Negotiation with seller” and “Complaints to the online trading platform” weights are almost the same. They are all good alternative solutions to solve the disputes. The “Negotiation with seller” is more flexible and more convenience for the buyer, however it probably is not so fair. “Complaints to the online trading platform” is more reliable and fair for the buyer, but it’s not so convenient as “Negotiation with seller” at the same time. The “File a lawsuit to the People's Court” has been evaluated as the least valuable choice. Though it’s absolutely fair.

And a **Non-Compensatory approach** also has been done which is the Disjunctive Reasoning. “It take a look at all the attributes and conduct a Pair-Wise comparison to determine which attributes are the most important by asking “which is more important?”³² and we give a score of 1 to the winning option and a score of 0 to the losing option.”

	Economic al	Fairne ss	Intelligen ce	Antagonis m	Flexibili ty	Predictabil ity	Convien ience	Timeline ss	Ordina l Rankin g
Economica l	0	1	1	1	1	1	1	1	6
Fairness	1	0	1	1	1	1	1	1	7
Intelligence	0	0	0	1	0	0	0	0	1
Antagonism	0	0	0	0	0	0	0	0	0
Flexibility	0	0	1	1	0	0	0	0	2
Predictability	0	0	1	1	1	0	0	0	3
Convenience	0	0	1	1	1	1	0	1	5
Timeliness	0	0	1	1	1	1	0	0	4

³² Sullivan, Wickes & Kroelling (2014) *Engineering Economics 15th Edition* Using the approach. Retrieved from: <http://www.planningplanet.com/guild/gpccar/managing-change-the-owners-perspective>

By using this method, the ordinal ranking is that the Fairness is the most important attribute. In e-contract dispute solution, fairness is the most important aspect for the buyer. The buyer’s satisfaction will lead to the prosperity of e-commerce projects. The second, third and fourth important attributions are Economical, Convenience and Timeliness. These are all in line with the consumers’ psychology. The least important attribute is the Antagonism. It is important for buyers but not as much as the others.

STEP 4: Selection of the Criteria

Comply with the development of the times: The e-commerce project itself is the product of the development of the times and technology. Therefore, the solution to e-contract disputes must meet the current people’s demands.

Win-win: At any time, the resolution of disputes seeks to achieve a win-win situation. And the resolution of e-contract disputes in today’s society is no exception.

Meet the requirements of the weak party (buyer): The apparent inequality of buyers’ and sellers’ status in e-commerce projects makes the weak parties more inclined to resolve disputes. Meeting the requirements of the weaker parties promotes the development of e-commerce projects better.

	Comply with the development of the times	Win-win	Meet the requirements of the weak party
Buyer resolves independently	Good	Good	Good
Negotiate with the seller	Good	Good	Neutral
Complaints to the online trading platform	Good	Neutral	Good
Complaints to the local industrial and commercial office or the consumer association which have jurisdiction over the network seller	Neutral	Neutral	Good
Applying for arbitration to an arbitration institution	Negative	Neutral	Good
File a lawsuit to the People’s Court	Negative	Negative	Good

It can be concluded that the best alternative solution of e-contract is “Buyer resolves independently”. It complies with the development of times, reaches a win-win situation and meets the requirements of the weak party. In e-commerce project, the similar self-solving

disputes will become the future development trend. Although litigation in solving disputes cannot keep up with the trend of the times, its existence is still necessary. However the number of litigation in solving the e-contract disputes will be reduced in the future.

FINDINGS

STEP 5: Comparison of Alternatives

The comparison of these alternatives will be presented below by the **addictive weighting technique**³³. This step gives the rank of each alternatives by scoring. This is a very objective and comprehensive evaluation of alternatives.

Attribute	STEP 1	STEP 2	Buyer resolves independently		Negotiation with seller		Complaints to the online trading platform		Complaints to the industrial and commercial office or the consumer association		Applying for arbitration to arbitration institution		File a lawsuit to the People's Court	
	Relative Rank	Normalized Weight (A)	(B)	(B)*(A)	(C)	(C)*(A)	(D)	(D)*(A)	(E)	(E)*(A)	(F)	(F)*(A)	(G)	(G)*(A)
Economical	6	0.21	1	0.21	0.8	0.17	0.6	0.13	0.4	0.08	0.2	0.04	0	0
Fairness	7	0.25	0.2	0.05	0	0	0.4	0.1	0.6	0.15	0.8	0.2	1	0.25
Intelligence	1	0.04	1	0.04	0.6	0.02	0.8	0.03	0.4	0.02	0.2	0.01	0	0
Antagonism	0	0	1	0	0.4	0	0.8	0	0.6	0	0.2	0	0	0
Flexibility	2	0.07	0.8	0.06	1	0.07	0.6	0.04	0.4	0.03	0.2	0.01	0	0
Predictability	3	0.11	1	0.11	0.6	0.07	0.8	0.09	0.4	0.04	0.2	0.02	0	0
Convenience	5	0.18	1	0.18	0.8	0.14	0.6	0.11	0.4	0.07	0.2	0.04	0	0
Timeliness	4	0.14	1	0.14	0.8	0.11	0.6	0.09	0.4	0.06	0.2	0.03	0	0
SUM	28	1		0.79		0.58		0.59		0.45		0.35		0.25

Analyzing by the chart above, it is significant that the best alternative is the Buyers resolve independently. This is very convincing because the Buyers resolve independently is in line with the e-commerce project's appeal, and also in line with the current development trend and the interests of buyers and sellers. The rankings of Complaints to the online trading platform, Negotiation with seller, Complaints to the industrial and commercial office or the consumer association follows, which scores 0.59, 0.58 and 0.45. These alternatives are feasible to solve the disputes in e-commerce projects. However the Applying for arbitration to arbitration institution and File a lawsuit to the People's Court are not quite in line with the appeals of e-commerce projects. Although the fairness is quite good, but e-commerce projects need simple, quick, easy and convenient solutions. These two traditional methods of dispute resolution seem to be somewhat outdated. Therefore, we will abandon these two alternatives in the next analysis.

STEP 6: Selection of the Perfect Alternative

Next, these alternatives are ranked by score, which in other words, are ranked from best to worst.

³³ Sullivan. *Wickes & Kroelling (2014) Engineering Economics 15th*. Retrieved from: <http://www.planningplanet.com/guild/gpccar/managing-change-the-owners-perspective>

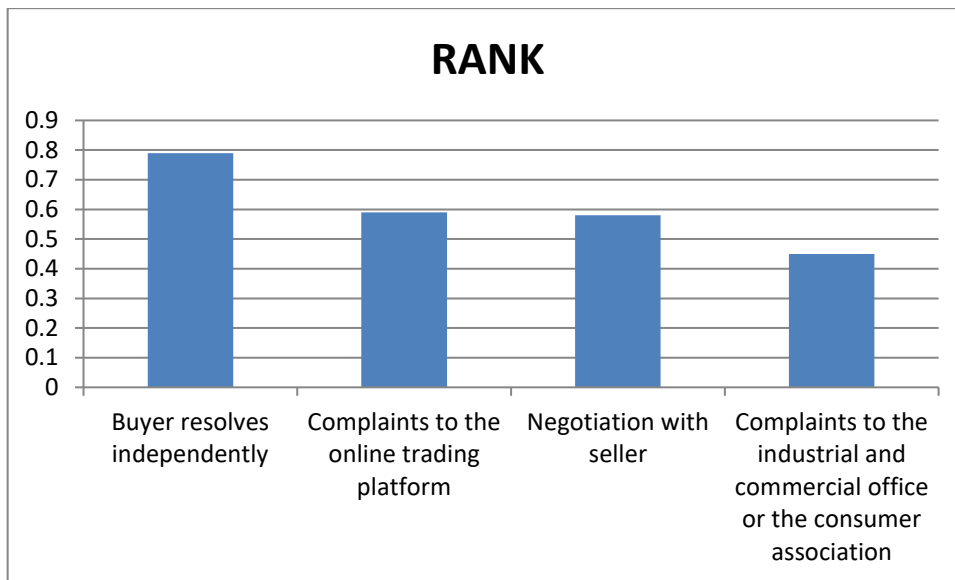


Figure 3. The rank of Feasible Alternatives³⁴

Thanks to the analysis of the fifth step, it is now possible to visualize these alternatives from best to worst by drawing them into a histogram. From this histogram above, the best alternative obviously is Buyer resolves independently, compared to File a lawsuit to the People's Court, it is by 700% ($7/1 \times 100$), and compared to the second best alternative Complaints to the online trading platform, it is 135% ($7/5.2 \times 100$). When the dispute cannot be resolved by the buyer himself or herself, Complaints to the online trading platform or the third party platform is the best alternative. "In order to encourage the parties to use ODR(Online Dispute Resolution), one of the methods used in successful ODR design is to integrate ODR into the normal process of e-commerce, which is to set ODR as part of the usual electronic contracting event chain."³⁵ In China, the dominant Taobao (Ali) adopts this method, thus if Taobao users generate e-contract disputes, they can defend their rights by complaining to Taobao platform (the third party). Compared with Amazon, which is known as the "world's largest e-commerce"³⁶, has used the method of integrating ODR into e-commerce conventions, but "its timeliness of resolving the e-contract disputes is far lower than Taobao by analyzing from their specific methods."³⁷

STEP 7: Performance monitoring and Post-evaluation of Results

Once the best alternative is obtained, using **the Pareto analysis** verifies the importance of this alternative by analyzing the "impact of dispute without Buyer resolves independently" and "impact of dispute with Buyer resolves independently".

³⁴ By author.

³⁵ Gabrielle Kaufmann-Kohler and Thomas Schultz. *Online Dispute Resolution: Challenges for Contemporary Justice*. Kluwer Law International, 2004, p.148.

³⁶ Cheetah Global Lab. *Insights into the global e-commerce market: Ali and Amazon, who is the world's number one?* Retrieved from <https://36kr.com/p/5090961.html>

³⁷ Cross-border Knows. *What is the Amazon chargeback claim? How should the seller handle and prevent it?* Retrieved from <https://zhuanlan.zhihu.com/p/36714965>

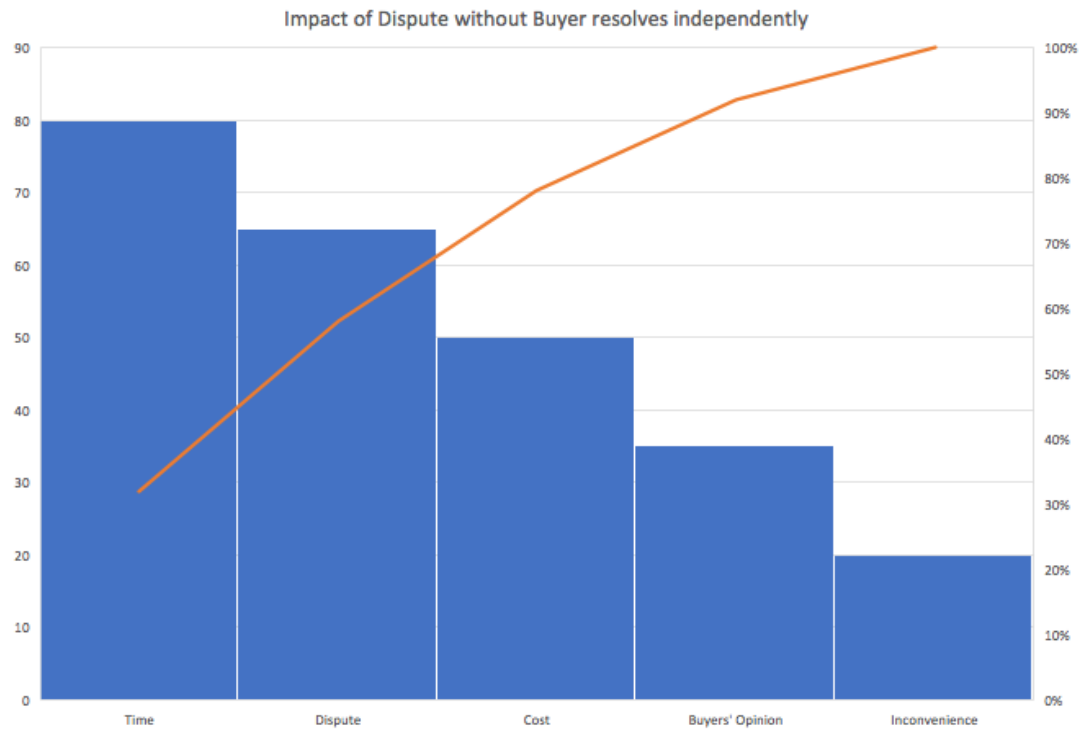


Figure 4. Impact of Dispute without Buyer resolves independently³⁸

It can be seen from the above chart that resolving dispute without Buyer resolves independently, the time cost is very long, the numbers of disputes are large, and the actual cost of both parties are high, buyers will complain and it reduces the convenience of e-commerce.

³⁸ By author.

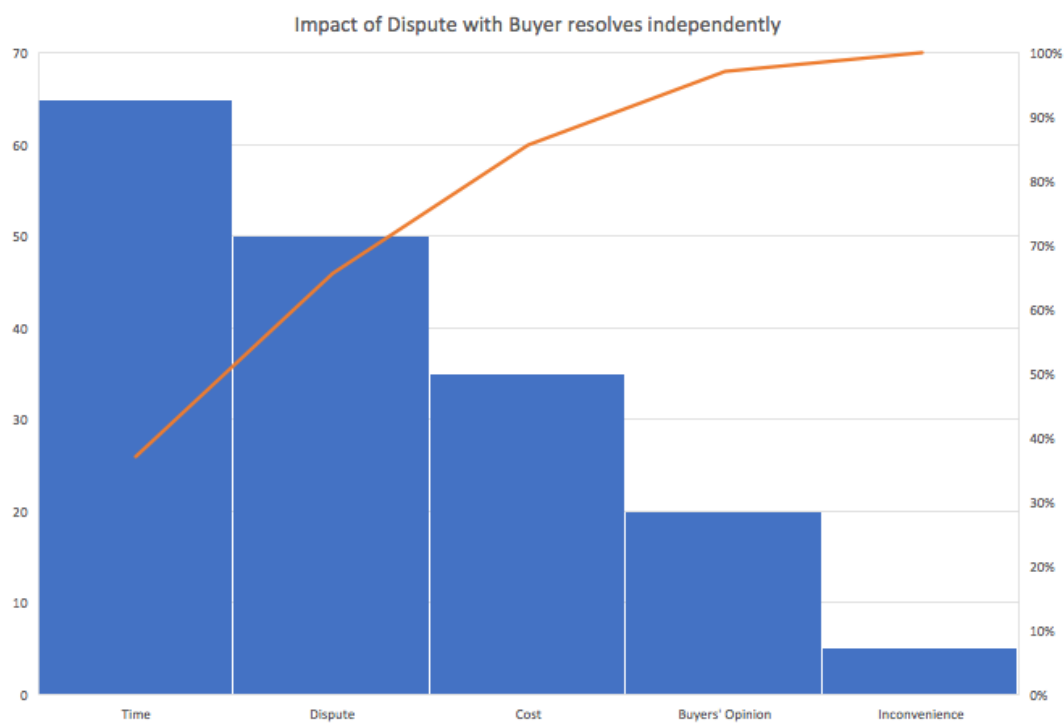


Figure 5. Impact of Dispute with Buyer resolves independently³⁹

However, after using the resolution of Buyer resolves independently, all these negative feedbacks are all declined. The time spend reduced, the number of disputes decreases, the cost is lower, the buyers’ complain less and it’s more convenient. This shows the importance of the resolution of Buyer resolves independently.

CONCLUSION

The aim of this paper is to analyze the root causes of the e-contract disputes and provide feasible solutions. To achieve this goal, there are three questions need to be answered: How do buyers and sellers reach a consensus in a dispute? In the dispute, how to maintain the legal status of buyers and sellers equal? What is the most notable problem in dispute resolution? These questions are all solved one by one in the process of analysis.

This article uses **the cause and effect diagram in root cause analysis, the Non-Dimensional Scaling Technique, a Non-Compensatory approach, the addictive weighting technique and the Pareto analysis** to point out six alternatives to resolve disputes in e-contract: Buyer resolves independently, Negotiate with the seller, Complaints to the online trading platform (third-party platform), Complaints to the industrial and commercial office or the consumer association which

³⁹ By author.

have jurisdiction over the network seller, Applying for arbitration to arbitration institution and File a lawsuit to the Court.

Among these alternatives, the most suitable for the current e-commerce project development situation, the best to meet the buyers' appeal and the interests of buyers and sellers is the Buyer resolves independently. This solution makes buyers and sellers reach a consensus in a dispute and maintain the legal status of buyers and sellers equal. The other solutions such as Complaints to the online trading platform (third-party platform) are also irreplaceable alternatives. And also through analysis, it is found that in the e-contract dispute resolution, the fairness, economical and convenience have been emphasized by both parties.

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