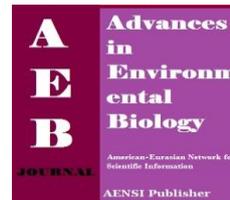




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Investigating the Role of Electronic Customs in Development of Exports in East Azerbaijan Province

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ABSTRACT

Background: The sensitivity and importance of exports for Iran Country has caused that instruments and factors affecting it be identified and efforts be devoted for developing exports. **Objective:** Customs services are factors affecting in development of goods and services exports. The objective of the present study is to investigate the effect of electronic customs on developing exports of East Azerbaijan Province. **Results:** The questionnaire employed in the research was a researcher-made one covering 20 questions by which and also applying Likert scale, the sample's data was measured. The validity and reliability of the questionnaire was confirmed. The present study whose population consisted the Customs of East Azerbaijan Province, was a descriptive survey research with applied objective. **Conclusion:** The results of the present study indicated that regarding the confirmation of all research hypotheses in terms of the ranking of the effects of electronic Customs using t-test and Cronbach's alpha, timely notification to exporters has the highest priority and using regression test, clarification of activities has the most effect on developing exports.

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INTRODUCTION

Exports consist of some part of international commerce of each country. In fact, one of the ways of increasing earning foreign exchanges and consequently economic development are goods and services exports. Doubtlessly, exports development and expansion in the world today and in these conditions which every country try to assign to itself more share of the global market is not a simple and easy thing to be done. Countries have found out that having some share of the market of a country is not only limited to material and economic benefits for that country, but in one way or another, the cultural and political presence can be considered. Customs services are among factors affecting in developing goods and services development. In fact, international commerce is meaningless without using customs services. Customs as the important parts and parcel of foreign commerce of each country are the arenas of connection, communication and provision of information from other agents of commerce and the executive of regulation and laws issued regarding exports and imports affairs. The most important role of customs is to promote the efficiency of the process of exports and imports as well as the supply and analysis of data and information related to foreign commerce of countries. Therefore, nowadays experts believe that the automation of customs is the vital part of any plan of developing commerce [12].

In the present study, it has been tried to via highlighting the role of technological advancement in customs process, convince economic and customs authorities to use these advancements in their working processes because it is believe that electronic customs has a significant role in reducing exchange costs, the transfer speed, communication improvement, and easier participation by commercial parties. By using information and communication technologies and creating electronic customs can conduct all operations, calculations and customs supervisions with accuracy and easiness, while there will be no problem such as the lack of accuracy or delay of doing work stages.

The delay in borders is the most obvious international barriers. The main reasons for these delays are traditional procedures of customs clearance, excessive bureaucracies, lack of transparency in laws and customs regulations, and the risk assessment procedures. One of the important sources of creating delays for merchants is that they should send relatively similar information in different documentary forms to different offices before cargo clearance. According to the estimations in some cases, 100 different documents and 20 organizations are

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involved in supervising a single commercial transaction. Although each of these documents have a different format, about 80 percent of their information are similar.

Common complaints of exporters and importers particularly in developing countries is about the existence of customs corruption [4]. Usually, customs duties and formalities constitute a small fraction of the costs of business transactions.

However, the complicated requirements in cross-border trades increase the scope of administrative corruption [7]. In traditional customs, goods themselves should be investigated in every respect. Maritime transportation of a bulk of goods which up to the recent decade has assigned international commerce to itself, provides enough time for customs to visit and inspect goods both regarding exports and imports. In addition, in traditional customs, it concentrates more on customs stages in a single point. Statements of imports and exports for conducting customs stages require multiple forms and conducting these stages without presenting paper forms by the assertive person or his agent in the determined time and place by the customs is not possible [7].

One of the biggest administrative barriers to commerce (particularly in the field of commerce using maritime transportation) is cumbersome customs regulations and procedures [9].

Accordingly, the main objective of the present is to identify the role of electronic customs in developing exports in East Azerbaijan Province.

1. Literature review:

1.1. The concept of electronic commerce:

Electronic commerce, due to both being emerging and its very diverse applications and functions has different definitions for different resources. Here some of these definitions are presented:

1. World Trade Organization (WTO)' definition: electronic commerce refers to every form of commerce which the two parties, instead of physical connection, use electronic equipment. Electronic commerce includes equipment, standards, regulations, networks, protocols and applications.
2. EU's definition: electronic commerce refers to electronic processing and transference of data including voice, texts, and images.
3. Electronic commerce covers different activities such as electronic exchange of funds, electronic stock exchange, electronic bill of lading, business plans, collaborative engineering and designing, sourcing, government purchases, direct marketing and after sales service [7].

1.2. Importance of electronic customs:

1. To ensure the correctness of the amount and payment of customs duties and taxes on imports and exports
2. To monitor and evaluate import and export of goods and products [8]. Electronic customs refer to the adoption of electronic business in customs offices to supply their administrative and service needs as well as supply the needs of shareholders participating in international commerce and transportation better and increase commercial competition via faster clearance of goods and security and support of borders.

Customs are organizations which in their current duties consider two objectives in parallel. First, to provide facilities in the issue of international commerce and the second is to enforce terms and conditions. Attaining these two objectives concurrently is among the important challenges in processing of customs illustrated in fig. 2-5.

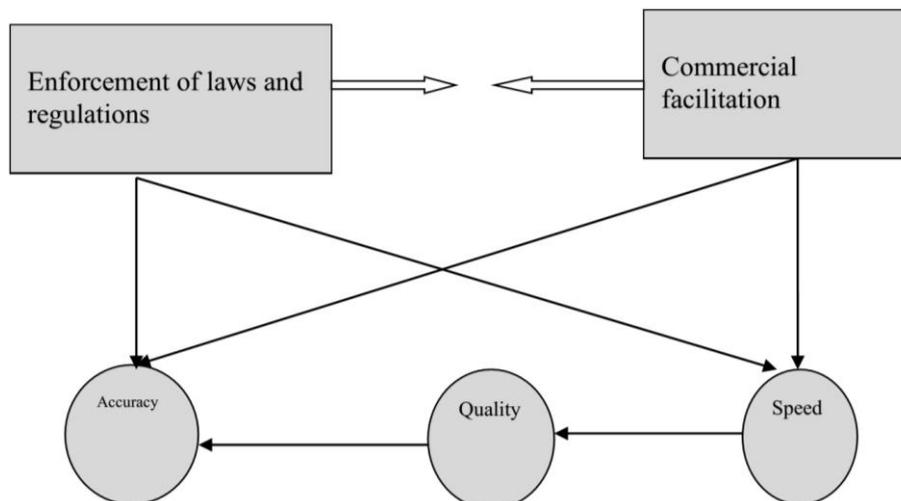


Fig. 2-5: establishing a balance between the two objectives of customs

Using IT helps customs for realizing the mentioned objectives. IT can transform customs and customs services in profoundly and in the way of developing commerce, practically eliminate a lot of previous barriers and replace modern methods with traditional ones [6]. In general, the international commerce model compatible with trade facilitation can be illustrated in the form of the fig. 2-6:

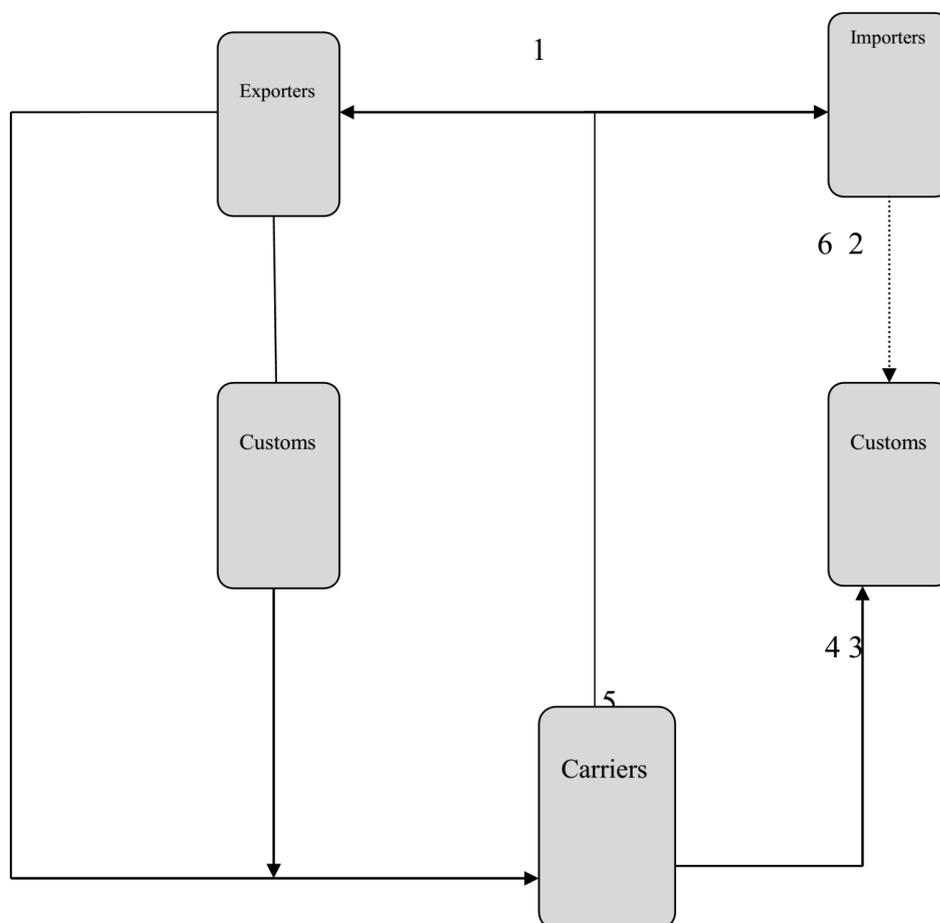


Fig. 2-6: The international commerce model.

In the above model, flow 1 is related to commercial activities present between exporters and importers. Flows 2 and 6 are legal communications and messages sent by exporters and importers to customs and indicate their responsibilities. Flows 3 and 4 are messages stating the importation of goods into the customs sent by carriers to customs. Flow 5 is transportation contracts signed between exporters and carriers.

Using Information and Communication Technology changes the traditional regulations and procedures of customs. This technology provides the possibility of automating organizational processes and receiving control information before the arrival of goods for customs, and also makes collecting financial data after some days or some weeks of clearance of goods possible. Furthermore, information and communication technology give this possibility to customs to be responsible and facilitators of a scope of commercial innovations such as fast delivery service, Just-in-time systems of production and distribution of support logistic networks.

However, most of present issues are due to the fact that when customs apply this technology without enough attention to simplifying coordination and standardization of the underlying and important processes, instead of manual procedures they use their electronic counterparts.

The general guidelines of the Kyoto Annex (2000) pinpoint that the automation of a manual process does not necessarily make customs. When they make an ineffective process automatic, it is obvious that poor results are obtained quicker [12].

2.3. data transmission models in electronic customs:

The models by which the issue of information sharing in each chain can be conducted are of three kinds as follows:

1. EDI-Based model: this model is illustrated in fig. 2-7. In this kind of data transmission, each institution refers information only to higher references and the superordinate has a database by which necessary decisions are made. The information and communication technology database system uses this model.
2. Third party model: in this model, a third party keeps data in a databank for the members of the chain. This third party may provide some services for the members of the chain, like Instill Company which activates among the distributors and consumers of foodstuffs and in addition to keeping data, it provides electronic communication. This model is illustrated below.
3. Hub model (the model used in electronic customs): this model is similar to the second model with this difference that instead of the third party, a computer system works in it. It is illustrated in the below figure. As identified in electronic customs, for data transmission, the Hub model is used [7].

4.2. Factors affecting the success of electronic commerce:

1. With what countries do we deal or from what countries will goods transit occur? (Different system of policymaking, demands, international agreements and different executive processes).
2. What products are exchanged?
3. Methods of carrying goods (by air, sea, rail, road or a combination of carrying methods).
4. Human factors including rates, productivity, the degree of following skills of factors of trade exchanges (employees, banks, insurances, transportation, forwards, customs and other government authorities).
5. Administrative systems and procedures within the involving companies are based on trade agreements. But, it is not such that developing commerce is meaningless or impossible. If fact, it is the emphasis on the issue that access to sum total of the accessible achievements of commerce development is very difficult.

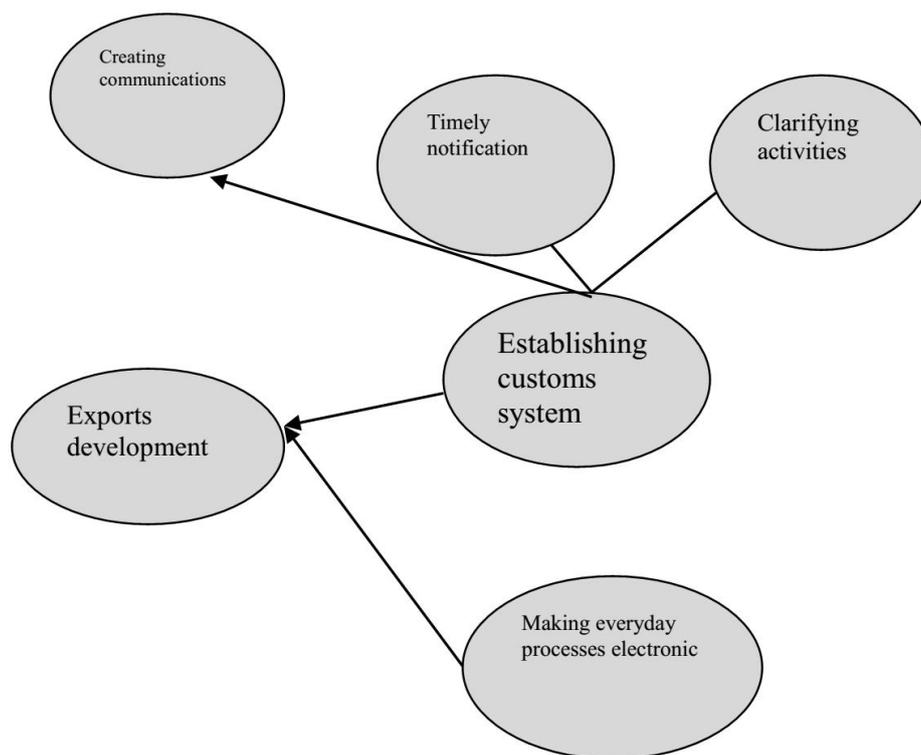


Fig. 2-16: The conceptual model of the research.

4. Research methodology:

In terms of aims, the present study is an applied one and in terms of data collection, it is a descriptive-survey research. The present study is applied because its results can be applied in customs and related organizations and is descriptive because research variables are investigated based on the status quo.

To evaluate the reliability of questions, a primary sample of 30 pre-test questionnaires were distributed and then using the data obtained from the questionnaires, the reliability coefficient was obtained using Cronbach's alpha by SPSS software program equal as 0.876 which was bigger than 0.75. This indicates that the questionnaire enjoys acceptable reliability. To determine the validity, this issue is presented that whether indices or manifest variables measure the thing considered by the researcher or another thing [8].

The final table

Cronbach's alpha	The number of the questions of the questionnaires
0.848	20

Regarding the value of Cronbach's alpha (0.848), the reliability all questions of the questionnaires is acceptable.

5. Research findings:

The first hypothesis: the frequency distribution related to the questions of the effect of making customs' everyday processes electronic on facilitating exports

To investigate the degree of effect of making customs' everyday processes electronic on facilitating exports the t-test with the hypothetical mean $H_0: \mu=3$ while $H_1: \mu >3$, and $\alpha = 0.05$ is used. Since the variance of the studied variable is unknown, its estimation and consequently to conduct the hypothesis testing, t-test is used.

95% Lower

Variable N Mean StDev SE Mean Bound TP

C15 185 3.5616 0.4714 0.0347 3.5043 16.20 0.000

Regarding the statistical testing $t=16.2$ and p value <0.05 , the significance level is less than the value of alpha (<0.05); as a result, the null hypothesis is rejected and the alternative one is confirmed. In other words, from the point of view of the staff, in the higher levels of their organization, making customs' everyday processes electronic is effective on facilitating exports.

The second hypothesis: the frequency distribution related to the questions of the effect of establishing electronic customs system on creating efficient communication of related systems and exports process

To investigate the degree of the effect of establishing electronic customs system on creating efficient communication of related systems and exports process the t-test with the hypothetical mean $H_0: \mu=3$ while $H_1: \mu >3$, and $\alpha = 0.05$ is used. Since the variance of the studied variable is unknown, its estimation and consequently to conduct the hypothesis testing, t-test is used.

95% Lower

Variable N Mean StDev SE Mean Bound T P

C6 185 3.7757 0.6754 0.0497 3.6936 15.62 0.000

Regarding the statistical testing $t=15.62$ and p value <0.05 , the significance level is less than the value of alpha (<0.05); as a result, the null hypothesis is rejected and the alternative one is confirmed. In other words, from the point of view of the staff, in the higher levels of their organization, establishing electronic customs system is effective on creating efficient communication of related systems and exports process.

The third hypothesis: the frequency distribution related to the questions of the effect of establishing electronic customs system on timely notification to exporters

To investigate the degree of the effect of establishing electronic customs system on timely notification to exporters the t-test with the hypothetical mean $H_0: \mu=3$ while $H_1: \mu >3$, and $\alpha = 0.05$ is used. Since the variance of the studied variable is unknown, its estimation and consequently to conduct the hypothesis testing, t-test is used.

95% Lower

Variable N Mean St Dev SE Mean Bound T P

C7 185 3.7189 0.6872 0.0505 3.6354 14.23 0.000

Regarding the statistical testing $t=14.23$ and p value <0.05 , the significance level is less than the value of alpha (<0.05); as a result, the null hypothesis is rejected and the alternative one is confirmed. In other words, from the point of view of the staff, in the higher levels of their organization, establishing electronic customs system is effective on timely notification to exporters.

The fourth hypothesis: the frequency distribution related to the questions of the effect of establishing electronic customs system on clarifying activities related to exports

To investigate the degree of the effect of establishing electronic customs system on clarifying activities related to exports the t-test with the hypothetical mean $H_0: \mu=3$ while $H_1: \mu >3$, and $\alpha = 0.05$ is used. Since the variance of the studied variable is unknown, its estimation and consequently to conduct the hypothesis testing, t-test is used.

95% Lower

Variable N Mean StDev SE Mean Bound T P

C11 185 3.4803 0.4575 0.0336 3.4247 14.28 0.000

Regarding the statistical testing $t=14.28$ and p value <0.05 , the significance level is less than the value of alpha (<0.05); as a result, the null hypothesis is rejected and the alternative one is confirmed. In other words, from the point of view of the staff, in the higher levels of their organization, establishing electronic customs system is effective on clarifying activities related to exports.

Conclusion:

The findings of the present research indicated that, as predicted, the factors of electronic customs significantly were effective on facilitating exports, efficient communication, timely notification to exporters and clarifying activities. In addition, a significant and positive correlation was found between establishing electronic customs system and exports development.

RESOURCES

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