Implementation of Standards in International Trade: Benefit or Barrier? A Case Study from Indonesia

Danar Agus Susanto
National Research and Innovation Agency of Indonesia

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Implementation of Standards in International Trade: Benefit or Barrier? A Case Study from Indonesia

Danar Agus Susanto[1]
[1]National Research and Innovation Agency of Indonesia, Banten, Indonesia
E-mail: danar.agus.susanto@brin.go.id

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Abstract: The paper opted for an exploratory descriptive study using the open-ended approach of grounded theory, including 37 direct depth interviews with representatives of export companies. The data was complemented by document analysis, including a description of its benefits and standard implementation, and standards required by the country of export. The purpose of this paper is to explain the relationship between standard practice and international trade. It is used to determine whether the implementation of these standards has benefits or barriers to international trade. International standards have a positive impact on international harmonization, whereas the implementation of national standards has a positive effect on exporters via additional competitiveness. However, the implementation of national standards can also have a negative impact when as a technical regulation by the importing country. The implementation of private standards, meanwhile, has a positive impact on product quality, corporate image, prices, and profits and a negative impact on the ability to obtain product information, market access, and overlap with applicable national and international standards. This study is only conducted on companies that export from Indonesia. This paper provides information and knowledge on how standards provide benefits and barriers to international trade. This paper fulfills the need for information to exporting countries and companies about the implementation of standards before carrying out export activities, so as not to become a trade barrier. This paper fulfills an identified need to study how standards play a role in international trade.

Keywords: Standard, implementation of standards, international trade, Indonesia.

1. Introduction

Trade is the activity or process of exchanging goods and services from producers to consumers across regions. According to the government of the Republic of Indonesia, Trade is the ordering of activities related to the trading of domestic and international goods and / or services for the purpose of transferring rights to goods and / or services for consideration [1)]. Based on the destination market, trade is categorized as either domestic or foreign. Domestic trade is trade carried out within a country, whereas foreign (or international) trade is the exchange of goods and/or services, across a country's borders that have an impact on both the domestic and global economy [2)].

Generally, international trade occurs as a result of supply and demand [3)]. The emergence of trade is influenced by many factors, including the knowledge and use of technology, the availability of natural resources, trends or lifestyles, market expansion, deficits, and surplus products in certain regions. According to Lubis (2010), Factors that influence international trade can be divided into two main categories: domestic factors and international market factors. Domestic factors include production capacity, prices on the domestic market and various domestic policies, while international market factors include prices on international markets, exchange rates and the demand side of product-importing countries.

The purpose of international trade is to improve the welfare of the people of a country so that the balance of supply and demand for goods in all countries is achieved [5)]. The trade sector dominates a country's economy, supports successful economic development [6)] and is an important aspect of economic globalization [5)].

International trade is very complex because political and state borders can impede trade-for example, through tariffs, tariffs, or allocations on imported goods. Other difficulties may arise in international trade because of differences in culture, language, currency, estimates, scales and law [7)]. These challenges lead many countries to integrate in economic and trade activities; that is, countries in a region become a market power without barriers. As a result of economic globalization, a country's boundaries become blurred, and the link between the national and international economies tightens. Globalization of the economy generates both profits and losses. On the one hand, it creates opportunities for domestic products to compete in international markets; on the other, it opens space for foreign products to enter into the domestic market. While many countries create protections for domestic products, they must remain compliant with the rules of the World Trade Organization (WTO). The use of tariff and non-tariff barriers in international trade as a protection measure is increasingly limited, such that most countries use standards as a solution [8]. The mandatory implementation of standards in international trade must be in accordance with the rules and principles set forth in the Agreement on Technical Barriers to Trade (TBT - WTO) and the Agreement on the Implementation of Sanitary and Phytosanitary Measures (SPS).

The implementation of standards is usually related to product internationalization and exchange relations. Implementation of the Standards is associated with the first-class tradition of the enterprise and society as consumers[9]. Product quality is one of the most important economic indicators in the production process[10]. Standards are associated with purchaser interests, health and safety, environmental protection, and management, and that they influence each the vendor and client of a product withinside the market. At the national and international level, standards also become a political issue [11]. Standards are developed, created and respected by the community in accordance with applicable rules[12]. This study aims to determine the implementation of standards in international trade and whether the implementation of these standards serves as a barrier or a benefit in this context.

2. Materials and Methods

2.1 Types of standards and their implementation

Standards are documents created by a consensus of experts and approved by a recognised body that provide guidance on the design, use or performance of materials, products, processes, services, systems or people[13]. In Indonesia, standards are interpreted as technical requirements, or procedures or methods, created based on the consensus of all parties or governments. International decisions that consider safety, health, environment, science and technology development, and experience requirements. Current and future developments for maximum benefit to all standard stakeholders [14]. According to Verman (1973), standards are categorised into five levels as follows:.

Table 1. Standard levels and aim of the implementation.

No.	Level of Standard	Aim of the Implementation
a.	International Standard	To facilitate the exchange of goods and services and develop cooperation in the areas of intellectual, scientific, technical and economic activities
b.	National Standard	Promote domestic exchange of goods and services, promote international standardization, and develop mutual cooperation in the fields of intellectual, scientific, technical and economic activities
c.	Association Standard	Facilitate the exchange of goods and services across the industry, promote national standardization and develop cooperation in the areas of technical and economic activities
d.	Company Standard	Promote material compatibility in enterprises, coordinate all operations, promote industrial and national standardization, develop cooperation in the field of technical and economic activities
e.	Individual Standard	To facilitate the achievement of specific project requirements and encourage the use of existing standards at various levels as needed.

Source: [15]

Maintaining and improving quality should become a habit for the organization. Standards are also differentiated into voluntary and mandatory standards based on their intended implementation. Depending on the category of the organisation by which they are to be applied, standards are further divided into public and private standards [16].

Table 2. Management and implementation of standards

Implementation	Management of Standard	
	Public	Private
Mandatory	Regulation	Legally mandated private standards
Voluntary	Voluntary	Voluntary

Source:[17]

Public standards consist of international standards and national standards, whereas private standards are those set by associations, companies, and individuals. The implementation of public and private standards can be either mandatory or voluntary, depending on the government, market or region that enforces them.

2.2 Standardization in Indonesia

The nationally applicable standard in Indonesia is the Indonesian National Standard (SNI). The application of SNI by business actors is not only useful for maintaining the competitiveness of local products from the invasion of foreign products entering Indonesia, but also for protecting local consumers from foreign products that do not comply with the standards. In principle, the implementation of SNI by business actors is voluntary, and is carried out to obtain recognition of the quality assurance of the products produced.

Certification in the implementation of voluntary SNI is more of an acknowledgment for business actors that their products have fulfill the specifications or provisions of SNI. Therefore, the certification is not regulated in the regulation, but the product certification agency that issues the SNI voluntary, is obliged to monitor the use of the SNI mark certificate.

The enforcement of mandatory SNI is carried out through the issuance of technical regulations by government agencies that have the authority to regulate activities and product distribution. The circulation of products that do not comply with the requirements of mandatory SNI is prohibited, so that the government can protect consumers. The enforcement of mandatory SNI is carried out carefully to avoid a number of impacts [18].

2.3 International trade

According to Lindert dan Kindleberger (1993), international trade is considered a result of the interaction between competing supply and demand. Supply and demand involve the interaction between the possibility of production and consumer preferences. There are two important factors involved in the occurrence of international trade: (1) the specialisation of production; and (2) information about the needs of traded product.

Exports are activities that involve the production of goods and services produced in a country to be consumed outside that country's borders[20]. Deliarnov (1995) defines exports as domestic excess production which is then marketed overseas. According to Statistics Indonesia (2016), 'exports' refers to all goods that are brought out of the territory of a country, which can be both commercial and non-commercial (i.e. conventional goods as well as grants, donations, and gifts), as well as goods to be processed abroad. The benefit and profit of these exports are then put back into the origin country.

In the theory of international trade, the factors that influence exports can be viewed from the perspective of either supply or demand[3]. On the demand side, exports are affected by export prices, real exchange rates, world income and devaluation policies. On the supply side, exports are affected by export prices, domestic prices, real exchange rates, investment capacity, commodity imports and deregulation policies. Demand theory explains the nature of the relationship between demand and commodity prices according to the following hypothesis, The lower the price of a product, the higher the demand for the product and the higher the price of the product. The lower the demand for the product[23].

2.4 Relationship between standards and trade

The development of standardization is currently accelerating and plays an important role in the era of globalization [24][25][26][27]. This development is due to the standard being a problem that greatly affects various public policies and public interests [11], it is always associated with product internationalization and trade relations. Standards are closely related to consumer interests, health and safety, environmental protection and management [28][29][30]. In international trade, technical regulations and industry standards vary widely from country to country. Too many different standards can cause difficulties for exporters and importers in trade between countries. The application of changing standards can be used as an excuse for trade protection purposes in a country. Standards can affect sellers and buyers of products in the market. Standards are a matter of economic information which is market dynamics related to product information available to buyers. Standards are developed as a means of exchanging information, ensuring quality, and achieving public desires [30].

2.5 Method

This study opted for an exploratory descriptive study using the open-ended approach of grounded theory. The exploratory-descriptive approach is a research method that aims to gather initial information that will help determine the problem, formulate a hypothesis and analyze the problem[31][32]. The primary data collection was carried out using survey methods and direct interviews with export companies using questionnaire tools.

The sampling method used was purposive sampling. Purposive sampling as sampling based on specific considerations such as population characteristics or known characteristics[33]. According to Sugiyono (2010), purposive sampling is a technique for defining survey samples from a specific perspective, with the goal of making the data acquired later more representative[34]. The sample for this research consisted of 37 respondents at Indonesian companies that export products and have implemented standards for international trade. The industrial sample is a large-scale company consisting of companies engaged in the priority areas of the Indonesian industrial revolution 4.0, namely food and beverages, textiles and textile products, electronics, automotive and chemical products. These five sectors are Indonesia's leading sectors, which have an export trade value of more than 60% of the total value of Indonesia's trade exports. Respondents are located in the provinces of DKI Jakarta, Banten, West Java and Central Java. Respondents who represent the company are employees assigned by the company who have the ability and competence to answer the questionnaire. Primary data collection was carried out through direct survey methods to respondents using questionnaires. The questionnaire consists of several parts, including general information on respondents, implementation of standards (national, international, private), the benefits of implementing standards, acceptability, and the role of standards in international trade. The method used to analyze the implementation of standards for international trade in this study was descriptive analysis.

This study aims to determine and provide information, whether the implementation of standards provides benefits or barrier in international trade which is done through case studies of companies exporting in Indonesia. The paper opted for an exploratory descriptive study using the open-ended approach of grounded theory, including 37 direct depth interviews with representatives of export companies. The data was complemented by a document analysis that included a description of the standard implementation, including its benefits and the standards required by the country of export.

3. Results

3.1 Implementation of national standards in international trade

National standards are, simply put, standards developed by a particular country. For example, Indonesia uses the Indonesian National Standard (SNI), which is a standard developed by the National Standardization Body (National Standardization Agency of Indonesia) that is applied within the territory of the Republic of Indonesia. This standard was developed to facilitate the exchange of goods and services at the national level. Although the SNI was developed to be applied within Indonesia, national standards can also be applied to international trade. This is due to the fact that several national standards have been developed with reference to international standards or the standards of export destination countries through identical adoption, so that national standards (such as SNI) can be accepted in international trade.

Implementation of these standards is also carried out by conformity assessment bodies accredited by national accreditation, such as the Indonesian National Accreditation Board (KAN). KAN has entered into agreements to mutually recognise the results of certification, testing and inspection – referred to as Multilateral Recognition Agreements (MLAs) or Mutual Recognition Arrangements (MRAs) – with the International Accreditation Forum, the Pacific Accreditation Cooperation, the International Laboratory Accreditation Cooperation and the Asia Pacific Laboratory Accreditation Cooperation[35)]. By signing an MLA or MRA, members of the accreditation body agree to mutually recognise the certificates and reports issued by accredited conformity assessment bodies. This mutual recognition has the advantage of reducing the necessity of recertification or retesting of goods and services when moving from one country to another.

Based on the results of the survey conducted in this study, national standards can also be used to facilitate international trade. Standards applied include the following:

- SNI ISO 13006:2010: Ceramic tiles – Definitions, classification, characteristics and marking (identic with ISO (International Organization for Standardization)
- SNI 06-1903-2000: Standard Indonesian Rubber
- SNI 0099:2012: Tyres for trucks and buses
- SNI 0100:2012: Tyres for light trucks
- SNI 0098:2012: Tyres for passenger cars
- SNI 8222:2016: Sardines and mackerel in cans
- SNI 15-0047-2005: Flat glass

The implementation national standards as a reference in export exchange is normally because of numerous factors, which include country wide requirements being same or harmonious with worldwide requirements. Another aspect is associated with parameter quality, requirements have the excellent or higher parameters than the requirements implemented with the aid of using a marketplace and are advanced with the aid of using the ruler of the uncooked fabric merchandise or monopolizing marketplace stocks may be every day in worldwide exchange. Good product quality according to standards will support communal life, which in turn sustains or complements human life[36)]. Customer quality product is the target of the organization to maintain and develop the organization, including winning business competition[37)]. The quality of the products also relies heavily on the manufacturing, packaging, handling, and transportation processes to customers [38)].

To make our products more competitive, the same national standards as international standards have been applied and accepted by consumers. As an example, above the SNI ISO 13006 standard (Ceramic tiles – Definitions, classification, characteristics and marking) is identical to that adopted internationally, i.e., ISO 13006:1998 (Ceramic tiles – Definitions, classification, characteristics and marking). Identity or harmonization with international standards ensures that a product will be easily accepted by export destination countries because the product quality is in accordance with international quality requirements.

SNIs accepted by export destination countries include those related to rubber and rubber products (tyre), sardines and flat glass. As Indonesia is one of the world's most significant rubber producers, it has an influence in developing rubber standards. The standards of producing countries and the origin countries of large raw materials have an influence on the acceptance of standards in international trade. The next aspect of acceptance is parametric. National standards are more rigorous than international standards; as such, products that can meet these more stringent national standards are more accepted in the international market. The Indonesian tyre SNI is very high – higher than comparable ISO standards.

Consequently, Indonesian local tyre succeeds in their home country (including because Indonesia is rich in rubber) and are also accepted in the international market.

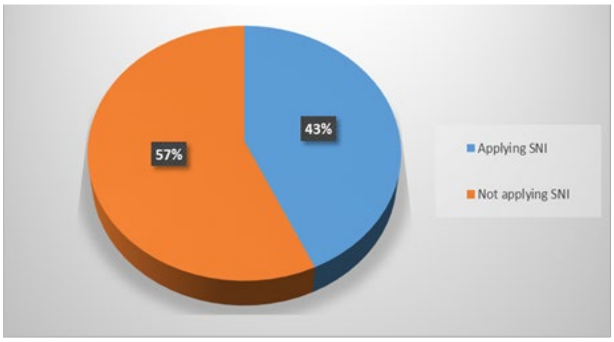

Fig. 1. Implementation of national standards for international trade

The implementation of national standards for export trade has a positive effect on the trade process. When exporters from a country use national standards (i.e. specific standards for country X), it can lead to superior export performance[39]. For importers, using national standards can have both positive and negative effects. However, if the implementation of standards as a technical regulation, it will generally have a negative impact [39]. The adoption of national standards by the importing country reduces imports for non-manufactured goods (such as agriculture) and enhances the ability to promote manufactured products. If a product needs to be adapted to an overseas market, the country-specific standards of the importing country provide valuable information for adapting the product to this market. Otherwise, collecting this information will be costly[40].

Although tariff barriers in international trade continue to decrease, technical and regulatory barriers continue to increase to hinder trade. There has been an increasing use of technical regulations such as standards as a trade policy in multilateral, regional and global trade [41]. These non-tariff barriers are a special concern for developing countries because they can lead to an increase in production costs to be able to meet the mandatory standards applied by the market of export destination countries. While meeting voluntary standards such as those contained in ISO 9001, developing countries find it difficult to apply best practice information on norms and to obtain the resources needed to implement good production methods and processes. Domestic regulations affecting imports through technical requirements, testing, certification, and labeling are new and important in trade liberalization[30].

3.2 Implementation of international standards in international trade

Export destination countries impose standards for screening sub-standard products, thereby protecting the domestic market and guaranteeing security, health, safety, and environmental sustainability. The implementation of standards by export destination countries is divided into three categories: national standards of export destination countries; international standards; and other standards (private standards).

As shown in Figure 2, companies engaged in export trade also face standards applied by importers. Most of them are national standards of the country of export. International standards represent 32%, while other (private) standards represent 21%. International standards applied include ISO 9001:2015, ISO 14001:2015, ISO 22000 and Hazard Analysis Critical Control Points (HACCP). Most international standards applied by importers are related to management standards, such as quality management systems, environmental management systems, food safety management and HACCP. Management systems are implemented by companies to ensure that products or services are manufactured and controlled based on appropriate control of the quality provided on an ongoing basis. Countries that export using international standards experience, in many cases, a positive (or at least neutral) effect on their export performance, while importing countries who adopt international standards tend to also increase imports [39]. Harmonisation of standards increases exports from developed countries and reduces exports from developing countries [39].

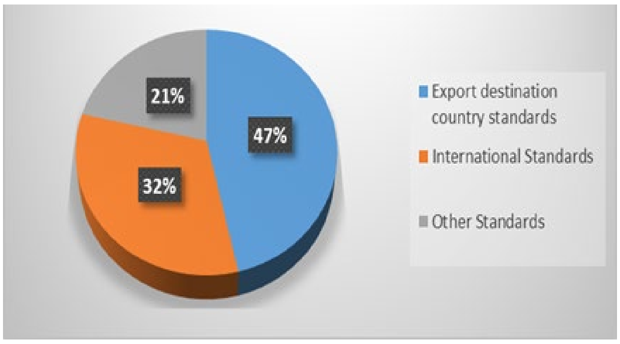

Fig. 2. Implementation of standards by export destination countries

Harmonised standards in a region tend to be very strict compared to those typically used by developing countries; as a result, the benefits of harmonisation in the form of economies of scale outweigh the costs of meeting stricter standards[42]. In developed countries that are used to strict standards, the benefits of harmonisation outweigh the costs[39]. Different standards regarding product definition, specifications and quality requirements between countries create barriers to trade [40].

3.3 Private standards in international trade

Private standards are standards designed by entities outside the government, whether business entities or non-profit organisations[43]. According to the ISO (2010), private standard are described as all styles of requirements advanced via way of means of non-authorities establishments which have sure traits associated with governance, improvement and interrelation elements of numerous stakeholders blanketed stakeholder engagement[45)] and Shepherd and Wilson (2013) counselled that private standard can, on the only hand, offer blessings in phrases of marketplace access, control efficiency, development of product first-rate and company photograph and may even lower commercial enterprise cost.[46)]. On the other hand, however, the implementation of private standards can create problems related to ownership and governance by certain authorities, which are sometimes not transparent and may not be based on scientific reasons. In addition, the implementation of private standards can also burden certain producers, such as smallholders and producers who are outside the area where private standards are applied[47)]. Private standards can also overlap with existing standards, such as applicable national or international standards. Furthermore, in addition to overlapping with existing standards, private standards may also overlap with regulations established by export destination countries. Private standards imposed by export destination countries include the British Retail Consortium, The International Federation of Organic Agriculture Movements *(*IFOAM), Global GAP (Good Agricultural Practices) and Global Food Safety Initiative.

According to Jaffee and Henson (2004), producers' financial situations tend to be better when participating in private standards[48)]. Overall, the direct impact of participating in private standards is that producers make prices and profits that tend to be positive. However, for some producers, the implementation of private standards also has a negative impact – namely, the increased income does not offset the additional costs and increased labour necessary to meet the requirements of the private standard.

However, the indirect positive impact can be greater than the direct financial impact of adhering to private standards. For example, the producer's business conditions can be significantly improved, the possibility of making direct and faster profits is greater, the relationship with the buyer is better, and the producer can obtain marketing guarantees and quality improvement. Other positive effects of participating in private standards include technical support and training and increased access to credit[49)].

4. Discussion

In line with the previous explanation, the implementation of standards in international trade has a positive and negative impact on its implementation. The impact can be summarised on Table 3.

Table 3. Impact of implementation of standards in international trade

Impact	Type of Standard		
	National	International	Private
Positive	X	X	X
Negative	X	-	X

As shown in Table 3, the implementation of standards has both positive and negative impacts on trade, except for international standards, where the correlation is always positive. National standards have both positive and negative impacts. National standards voluntarily provide positive benefits as quality assurance and product competitiveness improvement, and there is no negative impact from this aspect because there is no coercion or obligation in implementing standards, only pure business competition. While the national standard is mandatory as a regulation, it provides an obligation for business actors to apply the standard if they want to enter the country's market. In this aspect the application of standards can provide positive and negative aspects. The positive aspect is related to the availability of information regarding legal and clear rules regarding entry requirements to an export country's market, so that producers will find it easier to enter. While the negative impact, if the application of this mandatory standard is not widely documented and informed, then this becomes a barrier for producers when entering the market. At this stage, the information disclosure aspect of the WTO's TBT regarding the obligation to disseminate standard-based regulatory information becomes a solution.

The implementation of international standards has a positive impact on international trade and has no negative impact. International standards, such as ISO and IEC, have become common standards in trade, especially management standards. Implementation of this standard is voluntary by nature, but many countries, regions and markets require it to be implemented. Disclosure of information regarding this matter has been accepted by producers, consumers and related stakeholders. Since the international standard is a consensus standard for all countries, its implementation is also agreed in all countries.

The adoption of private standards has both positive and negative impacts on international trade, as well as on national standards. Private standards apply mandatory for producers who want to enter a market that applies private standards. Access to information, cooperation and mutually beneficial relationships between producers and consumers on the implementation of private standards are important aspects and will have a positive impact. Enforcement of private standards requires costs, but if it is balanced with fair value, it will be mutually beneficial. On the other hand, if producers do not have access to complete information, the implementation of private standards will become a barrier.

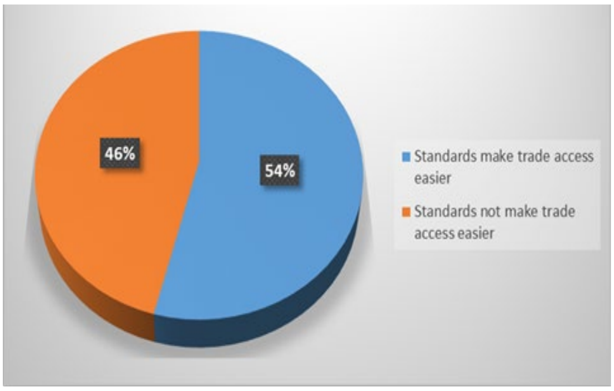

Fig. 3. Access after implementation of standards

As shown in Figure 3, the implementation of standards by both exporting countries and importing countries can facilitate international trade but can also become a barrier to such trade. The implementation of standards facilitates trade access because it is related to the effect of harmonization with international standards as a guarantee of product quality and improving competitiveness, including selling power and consumer confidence. The barriers that arise occur because of any differences in standard parameters between countries and lack of information regarding the implementation of a standard by a given entity. Standards can be used as a strategy in country or organizational development[50].

Standards that are developed specifically and are not aligned with international standards, their implementation will become a barrier for international trade. In contrast, the development of uniform standards between countries or trade blocs in line with international standards will encourage trade between countries or trade regions. Specific standards developed by a country hinder trade because they require expensive testing or adaptation of products; however, they provide information about the market, whereas harmonizing standards eliminates the costs of product adaptation at the expense of a lack of linear variation in product to the amount of trade [51].

Standards can serve as trade barriers by rich countries to limit imports from poor countries, whether by accident or design. However, standards also provide a positive opportunity for trade, such that companies in poor countries have opportunities to export to rich countries [39]. The implementation of standards in trade has complex effects. Standards can be both a catalyst and a barrier to trade and development [52]. The implementation of non-tariff policies through standards affects international trade and the competitiveness of a given country [8].

Because the impact of applying standards is very complex, it is important to understand the principles of the Agreement on Technical Barriers to Trade (TBT - WTO) and the SPS so that the implementation of standards is not misused [53]. The WTO has two main principles, namely Most Favored Nations (MFN) and National Treatment (NT). The MFN is a principle according to which a WTO member country must provide equal treatment to all WTO member countries without exception. The NT emphasizes that the same treatment must be given to foreign entrepreneurs who export goods and local entrepreneurs in the country [54]. The TBT is one of the agreements within the scope of the WTO that regulates non-tariff measures related to technical regulations, standards, and conformity assessment procedures. The agreement was made in recognition of the importance of international standards and conformity assessment systems in improving production efficiency and facilitating the implementation of international trade[55]. The TBT regulates all products, including industrial and agricultural products, except for regulations related to the SPS (Sanitary and Phytosanitary), specifications for purchases made by the government (government procurement) and rules relating to services. The TBT was formed based on the principles of non-discrimination, prevention of unnecessary trade barriers, harmonization, equivalence, mutual recognition and transparency, with the aim of guaranteeing the quality of export products; protecting the safety or health of humans, animals, plants and environmental functions; and preventing deceptive practices in trade [56].

One of the principles of the TBT is transparency. WTO member countries must submit a notification to the WTO Secretariat regarding their administration of the implementation of the TBT agreement (Article 15.2) to make public all technical regulations and conformity assessment procedures. Each member country is obliged to submit information to other WTO member countries about its plans for the implementation of technical regulations that have the potential to create obstacles to international trade. The negative impact of the implementation of standards can thus be minimized by creating transparency in information regarding the implementation of standards by a WTO member country. In reducing trade barriers, procedures for developing standards, setting technical regulations and conducting conformity assessments must refer to the standards and guidelines developed by relevant international organizations, such as the ISO, International Electrotechnical Commission, Codex Alimentarius Commission, and International Telecommunication Union [57].

The success of international trade will have a positive and statistically significant effect on a country's economic growth. Improving trade performance can be done in various ways, one of which is by improving the system and improving quality infrastructure facilities and infrastructure, including standards and conformity assessment [58]. The implementation of standards that are in line with international standards provides smooth operation in global trade, because of the aspects of equality and acceptability. The implementation of standards is carried out as a form of compliance with buyer and regulatory requirements, quality assurance and enhancement of product competitiveness. Increasing trade performance, in this case product exports, needs contribution and cooperation between various parties, including the government, business actors, academics, research and others, to create competitive products [59]. The policy of a government becomes the locomotive for the success of international trade, because it will be a way for product penetration to enter other countries, including policies in terms of standardization implementation and conformity assessment [60].

Implementation of standards requires no small cost. These costs are unavoidable, starting from the costs of testing and certification procedures needed to assess whether a product has fulfill the standard requirements. The inefficiency and duplication of testing and certification requirements can result in unnecessary costs and increase costs significantly to producers, consumers, and society. Especially the costs in fulfilling the conformity of a product with standards or standards-based regulations in various export destination countries. The policy on goods quality standards in the Technical Barrier to Trade (TBT) forum stipulates that fellow member countries of TBT must provide information to each other about the application of standards as regulations, accept the principle of conformity assessment and/or recognize the standards of each country by establishing a mutual recognition arrangement (MRA) with requirements for the existence of balanced rights and obligations. This is an exit strategy, information on standards-based regulations does not become a barrier in export trade.

5. Conclusion

Implementation of standards through certification becomes very important to reduce gaps in interpretation and representation of the quality of international traded goods. Generally, the buyer is the one who sets these standards and the seller is obliged to meet the required standards if he wants to get the fair value of the goods sold. Standards are not only a guarantee for the transacting party, but also an added value if the standard can be specified explicitly. But, the implementation of standards has both positive and negative effects on international trade. The implementation of international standards has an overall positive impact because of the effects of international harmonization. The implementation of national standards has positive and negative effects; its positive impact on exporters is additional competitiveness, and its negative impacts occur when the implementation of national standards is made into technical regulations. Similarly, the adoption of private standards also has positive and negative impacts. The positive impact of implementing private standards is increased market access, management efficiency, improvement of product quality and company image, reduction in business costs and prices and profits that tend to be positive. The negative impacts is the creation of obstacles for producers who are outside the area of enactment of private standards because they are not transparent, do not necessarily have scientific bases and overlap with applicable of national and international standards. This research is a case study in one of the developing countries, namely Indonesia, so it is recommended for further research to be carried out in other developing countries, in developed countries and underdeveloped countries. Through research with a broad scope, the conclusions will be more comprehensive.

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