



# Technical Barriers to Trade faced by South African SMME's

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## TECHNICAL BARRIERS TO TRADE FACED BY SOUTH AFRICAN SMME'S<sup>†</sup>

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ABSTRACT. South Africa is an open economy, and, therefore, it is affected by what happens in foreign markets. Exports and export growth are cornerstones of South African economic development policy. One of the implications of an export-orientated economy is that many of its SMME manufacturers must, of necessity, conform to the technical requirements in export markets. South Africa will have to follow international conformity assessment trends and adapt to the highest common denominator in many of these markets. The challenges for local compliance with the technical standards, regulatory and conformity assessment regimes are substantial, even when they are transparent; however, when compared to what might be faced by local SMME's addressing technical requirements both closer to home within the local SADC region and in the rest of Africa, the challenges mount exponentially.

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## 1. INTRODUCTION

One of the most important challenges facing the World Trade Organization (WTO), according to Kessie (1999), is to facilitate the effective participation and fuller integration of all developing countries, especially the least-developed ones, into a multilateral trading system that is often perceived as unfair. The lack of equity arises from the perception that large industrialized countries keep their borders closed to imports from less developed countries, or otherwise subsidize production of goods that could be more cheaply produced in LDC's.<sup>1</sup> Bhagwati's (2002) contradictory argument is that the asymmetry of trade barriers goes the other way, because rich-country tariffs, which average 3%, are lower than poor country tariffs, which average 13%. The trade barriers LDC's impose upon each other, according to Bhagwati's view, are more significant restraints on their own development than those imposed by the rich countries. Bhagwati's arguments, however, are not broken down by sector and do not tell the entire story. According to a Sub-Saharan Africa Survey by *The Economist* (2004*b*), African goods sold in the Organization for Economic Cooperation and Development (OECD) countries face tariffs roughly ten times higher than those levied on goods traded within the OECD. These barriers are steepest in areas where Africa, with its vast amount of land and relatively cheap labour, has a comparative advantage, namely agriculture and textiles. In addition to tariffs, rich countries subsidise their farmers to the tune of \$320 billion a year, nearly the value of Africa's annual GDP, a value which poses further barriers to trade for LDC's.

On January 1, 1995, the WTO was created to improve existing international trade regimes in goods and services. Under WTO rules, quotas and subsidies are no longer generally allowed. Governments using quotas and subsidies, including those in Europe and the United States, have undertaken steps to reduce or even totally eliminate these according to an agreed timetable. The WTO encourages

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<sup>1</sup> The United Nations Conference on Trade and Development (UNCTAD) show that the share of the least-developed countries (LDCs) in both world exports and imports fell by one-half and one-third from the already meagre levels of 0.6 percent and 1.0 percent respectively in 1980.

members to use tariffs to manage market access rather than non-tariff measures, because tariffs are transparent and can be reduced.

Lower tariffs, arising from WTO agreements, are exposing other access restrictions, such as the aforementioned agricultural production subsidies and the focus of this research, technical requirements. Exporters frequently face difficulties in gaining access to markets due to requirements that products be tested and assessed in the importing country to ensure that local regulatory requirements are met. Technical Barriers to Trade (TBT) is the WTO's acronym for many of these access restrictions. The WTO has an agreement on TBT, signed by all members, which seeks to ensure that technical regulations, standards and procedures adopted by members for assessment of conformity do not create unnecessary obstacles to trade, UNCTAD/GATT (1995).<sup>2</sup> The Agreement on TBT and Agreement on Sanitary and Phyto Sanitary Measures (SPS) requires all technical regulations to be: transparent, justifiable, non-discriminatory and based on international standards whenever possible.<sup>3</sup>

Historically, prescriptive standards have been the primary vehicle of technical regulation. These standards generally define the processes and procedures required to achieve compliance and focus on the means by which the objective will be achieved rather than on the outcome. Although easier to enforce, such standards are often inflexible, restrict competition and inhibit innovation. In view of these problems, performance standards are now finding favour as a method for addressing a particular technical problem. Performance standards, based on outcomes rather than inputs, are advantageous, because different standards can be accepted, provided the objectives of the regulation are met.

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<sup>2</sup> In order to comply with the rules of the WTO, conformity assessment procedures should be based, whenever possible, on relevant guides or recommendations issued by international standardising bodies. With respect to the mutual recognition of conformity assessment procedures, WTO members are encouraged to accept the procedures of other members, even when those procedures differ from their own, provided they are satisfied that those procedures offer an assurance of conformity with applicable technical regulations or standards equivalent to their own procedures.

<sup>3</sup> Furthermore, systems for assessing whether products meet requirements must also be fair and open.

Importing regulations often mean voluminous paperwork, complex formalities, and many potential delays and errors.<sup>4</sup> According to a United Nations (UN) report on trade and development, see Hill (2002), a typical international trade transaction may involve 30 different parties, 60 original documents and 360 document copies, all of which had to be checked, transmitted, re-entered into various information systems, processed, and filed.<sup>5</sup> The aforementioned difficulties combined with specific technological factors for each product can have consequences for exporters. If the exporting company requires proof of compliance to an international (or local) standard and does not have a sufficiently developed national conformity assessment infrastructure, which includes an internationally recognised accreditation body, retesting may be required, leading to further delays and additional costs.

The availability of a commonly agreed technical standard is a valuable tool, assuming a sophisticated infrastructure is locally available to demonstrate compliance to the standard. South Africa is fortunate in having internationally recognised standards and metrology infrastructures in place. A local accreditation body, the South African National Accreditation System (SANAS) was established in 1980. This article describes the role that an internationally recognised accreditation system currently plays in ensuring that the output of domestic small, medium and micro enterprise (SMME) producers can be exported with the minimum amount of additional technical checks being introduced by an importing country, while pointing out the barriers that still remain due to the lack of agreed upon standards and the lack of information availability, especially for smaller enterprises.

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<sup>4</sup> A special report by The Economist (2004*b*) notes that in several African countries, regulations are proving to be hydra-headed. The more onerous they are, the more likely businesses are to offer bribes to get around them; therefore, lawmakers have a perverse incentive to keep inventing new ones, even as the old ones are removed. The same publication, The Economist (2004*a*) furthers the point, arguing that needless regulations foster graft.

<sup>5</sup> Clark (2000) provides an example of the difficulties facing a toy teddy bear. Teddy bears face more paperwork than tourists requiring visas and passports. To enter the United States the bear would have to show that it met federal toy safety regulations. If the importing companies wanted the bear to comply with a voluntary toy safety standard, the retailers would require certificates from four different Hong Kong laboratories to prove the voluntary safety standard had been met. Furthermore, Japan would require the bear to be labelled indicating its compliance with toy safety regulations and with formaldehyde testing requirements. If the bear were to be imported to the European Union (EU) it would be required to have a CE label showing it complied with the EU toy safety standard.

The outline of the article is as follows. In Section 2, a discussion of the relevant research relating to standards assessment is provided. The method of the study is detailed in Section 3, which also provides a discussion of the data used in the analysis. The results are presented and discussed in Section 4. A concluding section, Section 5, summarizes the findings, while providing thoughts regarding policy improvements and important further research topics.

## 2. PAST RESEARCH AND RELEVANT BACKGROUND

There is an increasing preference in the international community, including South Africa, towards export led growth to achieve robust and stable economies. Chen, Otsuki & Wilson (2004) suggest that export promotion is a priority goal for every country. However, export promotion must be based on the appropriate use of a country's comparative advantage within an international environment that encourages free trade. South Africa's Department of Trade and Industry (2004) has identified the SMME sector as a sector of the economy deserving encouragement and support. To grow and prosper, SMME's must improve their ability to meet customer's needs and regulator's technical requirements at internationally competitive prices.

Despite the obvious opportunities associated with exporting and encouragement towards export, Bateman & Zeithaml (1993) have shown that, while many large firms tend to be proactive about seeking opportunities for profitable exporting, many SMME's are very reactive. Below, a discussion of regulations, standards and conformity assessment, within the context of SMME's and the South African strategy towards SMME's, is undertaken.

**2.1. Technical and Other Standards.** According to the Organization for Economic Cooperation and Development (2000b), regulations can be divided into three categories. *Economic regulations* are direct interventions into market decisions such

as pricing, competition, market entry or exit. *Social regulations* protect public interest such as health, safety, the environment, and social cohesion. Finally, *Administrative regulations* involving paperwork and administrative formalities, “red tape”, through which governments collect information and intervene in individual economic decisions. Standards and the assessment of conformity to those standards can be classified under any of these three categories.

Breitenberg (1997), for example, shows that standards have existed from as early as 7000 B.C., when cylindrical stones were used as weight units in Egypt. Since that time, the use of standards has steadily increased. Research in Canada, by Industry Canada (1998), has shown a rapid rise in the number of standards used by most of Canada’s main trading partners. The Canadian research was further supported by research by the United States Department of Commerce (2004) suggesting that these standards have led to improvements in technical efficiency, product compatibility, resource allocation, information dissemination, and product innovation, while reducing transaction costs. The aforementioned transaction costs are argued to be lower by Maskus, Otsuki & Wilson (2004), who state that standards increase the transparency of product information and, thus, raise the compatibility of products and components.

Chen et al. (2004) argue that standards abroad may affect export performance for a number of reasons. First, governments have the ability to set standards and technical regulations based on domestic firms’ product characteristics or technology capacity, which can raise foreign exporters’ costs to accommodate these requirements. Second, the difference in standards across markets limits a firm’s scale of production. Third, embedded in standards, there often exists an implicit time delay and information barrier for exporters. The United Nations Industrial Development Organization (2004) has shown that any lack of international coordination and mutual recognition of technical infrastructure together with non-uniform technical regulations create technical barriers to trade, which are recognized as potential impediments for both developed and developing countries in accessing global

markets. According to the Organization for Economic Cooperation and Development (2000a), the impact of technical standards on trade flows is exacerbated by obligations to comply simultaneously with disparate requirements.<sup>6</sup>

Harmonisation of standards for the benefit of firms is likely to require a set of international standards; unfortunately there is, according to Kalenga & Kirk (2003), no accepted definition of 'international standard'. The Organization for Economic Cooperation and Development (1999) argues that the definitional difficulties are complicated by the lack of agreement between the standardising bodies, themselves. However, in the case of the International Standards Organisation (ISO) and the International Electro-technical Commission (IEC), which are the dominant bodies in their respective fields, the WTO has accepted their standards (OECD, 1999:12). Other standards, typically for specific sectors, are developed by treaty organizations with national governments as members (USDoC, 2004:7). Other standard setting bodies include The International Telecommunications Union (ITU), Codex Alimentarius (Codex), and The International Bureau of Weights and Measures (BIPM). The primary commonality for the standardisation, whether local or international, of a technical or other specification is elaboration by consensus and subsequent use, regardless of whether the standards are voluntary or mandatory.

Even in the case of international standards, those standards could still be used for local advantage, especially if the standards regime favours, even if by accident, a particular region or idea. Gray (2002), for example, suggests that trade regulations, which treat American capitalism as a universal standard, do not respect market organisation diversity. Meanwhile, American exporters feel that the European Union (EU) has disproportionate influence in standards bodies, such as ISO and IEC, due to the fact that these bodies allow one country to use only one vote regarding any standards setting issue (USDoC, 2004:17). Closer to South Africa, Chen et al. (2004) suggest that developing countries have suffered considerable export losses

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<sup>6</sup> In the case of dairy products, they found standards for sanitation, permitted additives, maximum veterinary drug residue levels and nutrition labelling. Due to the preceding difficulties, firms generally found the harmonisation of standards to be very helpful in reducing costs of product re-design and testing (OECD, 2000a:5).



due to their inability to respond to restrictive and variant environmental standards they were not allowed to influence. The World Trade Organization (2000) has recognized these difficulties and set down further guidelines encouraging the participation and elaboration of interests, other than those previously vested, in the process of standards development. The OECD has taken an additional step. Figure 1 illustrates a standards compliance protocol developed within the OECD, which could be beneficial towards alleviating the difficulties encountered by all firms trying to access global markets, especially SMME firms.

**2.2. Conformity Assessment.** Conformity Assessment is the internationally recognised term referring to the procedures, which directly or indirectly determine whether relevant requirements in technical regulations or standards have been fulfilled.<sup>7</sup> These procedures may include sampling, testing, inspection, evaluation and verification, as well as the assurance of conformity, registration, accreditation and approval and any combinations thereof, Peet (1997). Conformity assessment tools are used for virtually every customer-supplier transaction. In order to ensure that competent service providers perform these activities, governments are increasingly creating national accreditation bodies, which ensure a level playing field for conformity assessment providers.

Technical regulations serve little purpose if the conformity assessment system is weak or non-existent.<sup>8</sup> For Southern African Development Community (SADC) countries<sup>9</sup> according to a report by Southern African Development Community

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<sup>7</sup> Many forms of conformity assessment are specific to the object being assessed, e.g., a product, a service or a management system. Other forms are specific to the body undertaking the assessment. For example, first party assessment is provided by the manufacturer of the product, which makes a Supplier's Declaration of Conformity (SDoC) based upon an internal testing system, while third party certification or inspection is undertaken by an independent service provider, which may be a private company or an agency of the government; see, for example, a report by the Joint Committee of Assistance to Developing Countries in Metrology, Accreditation and Standardization (2004).

<sup>8</sup> The assessment system involves the infrastructure for testing, calibration, certification, metrology and accreditation.

<sup>9</sup> SADC, the Southern African Development Community, was established by treaty in 1992. The thirteen SADC member states are Angola, Botswana, Democratic Republic of Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe.

(2003), possibly due to the strong technological component associated with competent conformity assessment, weak assessment systems are a problem.<sup>10</sup> Due to the inadequacy of the assessment system in many developing countries, many developed countries have an inherent suspicion of products imported from developing countries, and, therefore, developing countries often insist on retesting after importation. However, the use of an internationally recognized accreditation regime by a country that is a signatory to the WTO TBT Agreement is meant to allow the signatory country to rely on the terms of the agreement to establish the competence of their conformity assessment system.<sup>11</sup> In other words, the use of an accreditation system should reduce the possibility of goods being denied access, or being retested upon entry, on the basis of inadequate conformity assessment (UNIDO, 2004:4).

At the international level, accreditation is increasingly accepted as the most transparent and non-discriminatory mechanism to prove that providers of conformity assessment services are competent to do so. The use of regional and international recognition arrangements between accreditation bodies can, therefore, be expected to provide an increasingly important instrument in international trade policy to support the appropriate use of international standards. The increasing importance of accreditation is demonstrated by the fact that the global approach adopted within the EU gave an important role to accreditation of conformity assessment bodies. In a report by the Commission of the European Communities (2002), The European Commission (EC) has acknowledged, after several years of implementation, that, in practice, most designating authorities within Europe now rely, to various degrees, on their national accreditation bodies to assess and oversee the bodies that they designate.

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<sup>10</sup> Kalenga & Kirk (2003) note that in the Southern African Development Community (SADC), given the limited availability of financial and human resources, the emphasis should be on the provision of conformity assessment services rather than building instructions in all fourteen SADC Member States.

<sup>11</sup> Section 6.1.1 of the TBT Agreement states that, "... verified compliance, for instance through accreditation, with relevant guides or recommendations issued by international standardizing bodies shall be taken into account as an indication of adequate technical competence." (UNCTAD/GATT, 1995)

Nearer to South Africa, it has been found that in almost all SADC member states, compliance of commodities with the requirements of the technical regulations is not, yet, verified effectively and efficiently (SADC, 2003:4). Therefore, contrary to international developments, a number of regulators within SADC member states, especially those with some laboratory capacity, tend to favour the approach of testing in their own laboratories (SADC, 2003:34). Additional testing is an extremely expensive option for the country as a whole.<sup>12</sup> Furthermore, some authorities make use of their legal powers in this regard to ensure income for their commercial operations.

Current evidence suggests that SADC member states have not really considered the pros and cons related to alternative conformity assessment approaches (SADC 2003:33). The lack of policy discussion surrounding conformity assessment should be a major concern for local business, especially SMME's, wishing to expand activities within the SADC region prior to launching themselves into the bigger international marketplace. Although daunting, it appears that exporting to Europe or the United States might be easier than to the SADC region, since the requirements are known and relatively stable. Unfortunately, transparency and clarity of regulation is not the case within the immediate region and the rest of Africa. Therefore, the application of these international standards towards accreditation within the SADC region has great potential to benefit local SMME's as well as SMME's within the rest of Africa.

Below, it is shown that the local technical infrastructure has overcome the problems with international credibility and is also appropriately self-sustaining. Furthermore, the remainder of the paper will focus on the role that a local, but internationally recognised, accreditation system currently plays and could potentially play in ensuring that the output of domestic SMME producers can be exported

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<sup>12</sup> For example, the government may need to continue to provide updated testing equipment, while the supplier is required to test and retest their goods every time the goods cross a border. In the end, the consumer pays a hefty add-on price.

with the minimum amount of additional technical checks being introduced by an importing country.

### 3. METHOD, SURVEY AND DATA

In order to examine the role of SANAS, a survey was undertaken to learn from firms, especially SMME's, the sorts of problems they encountered locally and internationally regarding conformity assessment activities and access to markets. Due to the small response rate (see below), the results obtained from the local data were initially compared to allow for the identification of major differences between issues confronting SMME's operating in the local environment compared to those issues faced when addressing foreign markets. In order to test the results of this initial comparison, the findings were then compared to the results and conclusions drawn from similar work undertaken by the World Bank and other international agencies, such as UNIDO; areas of commonality and difference were based upon these comparisons.

**3.1. The Survey Instrument.** An eighteen-point questionnaire had already been created as part of a larger project undertaken by the local accreditation body into possible future demands by local industry for its services. After permission had been sought and granted, the questionnaire was provided to regional chambers of business and members of the export council for distribution to their respective memberships. An initial section was used to segment the respondents into various categories starting with the size of the company and the sector in which they operate. The next set of questions was used to determine their previous exposure to, as well as selection, use, and impact on their business of conformity assessment.

The use of chambers of business and export councils as distribution channels for the questionnaire was considered to be a relatively quick and cost-effective way to reach a large sample of existing local firms. It was also thought that the use of this particular type of distribution channel would add further credibility and so enhance the probability of a recipient completing and returning the questionnaire,

an assumption strengthened by the fact that all of the participating organizations had been approached and indicated a willingness to assist.<sup>13</sup>

The issue of validity was addressed by initially selecting a large target population, the membership of chambers of commerce and the export council. The questionnaire was created to ensure that each question was written so as to solicit a definite and unambiguous response. The questionnaire was distributed indirectly via the secretariat of the various participating organizations, with their implied endorsement of the research, and respondents were, thus, able to remain anonymous, if they desired.

**3.2. Respondent Characteristics.** A total of one hundred and thirty-two local firms provided responses to the questionnaire, equating to a response rate of  $\pm 2.4\%$ . Although the sample size is relatively small with 96 SMME replies (72,7%) out of the total of 132 respondents, a World Bank study (Wilson and Otsuki, 2004:7) determined their results for South Africa with only 70 respondents. Of the 132 respondents, 13 (9.9%) were from the micro classification of between 1 – 5 staff, 47 (35.6%) were from the small classification of between 6 – 49 staff and 36 (27.3%) were from the medium classification. Although NTSIKA, the enterprise promotion agency of the DTI, classifies the medium category of SMME enterprises as between 50 – 100 staff NTSIKA (2001), the local questionnaire used a category of 50 – 200 staff.<sup>14</sup> The analysis that follows, therefore, addresses this expanded group of 96 SMME replies.

Interestingly, 52% of the respondents came from Gauteng, the most industrialized and populated province, while 11% of the replies were from Natal, which includes the primary shipping port in South Africa. These two sets of replies were provided via the two provincial Chambers of Business. A further 16% of the respondents replied via the Capital Equipment Export Council. In all, three sources

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<sup>13</sup> Unfortunately, the assumption about the efficacy of the chosen distribution channel subsequently proved to be erroneous.

<sup>14</sup> On the assumption that firms were more likely to have between 51 – 100 employees instead of 101 – 200, all of these observations were included in the analysis.

provided nearly 79% of the completed questionnaires. Various sectors of the manufacturing industry are represented. The distribution of SMME firms amongst the various business sectors is shown in Figure 2.

#### 4. ANALYSIS OF RESULTS

The results obtained from the local survey are discussed in two different sections, the domestic market and the export market, in order to highlight major differences between the domestic conformity assessment needs of SMME's compared to those of firms active in or considering accessing foreign markets. Results from this survey are compared to the relevant results from other surveys conducted by the World Bank, UNIDO, the OECD, and others.

**4.1. The Domestic Market.** Thirty-seven percent of the respondents reported that they had to comply with South African technical regulations, while fifty-five percent did not. According to Kruger (2003), nearly 33% of those, who responded in the affirmative, indicated that they had to comply with the South African Bureau of Standards (SABS) compulsory specifications. Fortunately, seventy-two percent of the respondents reported that they had not been excluded from contracts or tenders due to the lack of certification or a test report. Of those firms that had experienced rejection, nearly a quarter (23.5%) was from the small business category of SMME's. Given the fact that certification is necessary in many cases, it is worthwhile further examining concerns over conformity assessment and access to conformity assessment.

The survey results indicate that firms producing for the domestic market are concerned with ISO 9001 certification; forty-seven responses (49%) rated ISO 9001 certification as important or very important (see Figure 3). The other major international environmental management system, ISO 14001 certification, was rated as important or very important by only nine respondents. Further highlighted, rated as important or very important by twelve respondents, is the importance of the

relatively recent product certification assessment activity.<sup>15</sup> Laboratory testing and calibration rated 16.7% and 7.3%, respectively, while twelve responses rated other conformity assessment activities as important or very important.

The automotive quality system certification, using the requirements of the international standard QS 9000,<sup>16</sup> was rated as important or very important by nine respondents (9.4 %), which might appear high for such a specialised area of activity. The relatively high percentage response is, however, perhaps not unexpected due to the Department of Trade and Industry's Integrated Manufacturing Strategy<sup>17</sup>, which specifically identifies the local motor vehicle industry as a strategic industry sector. The increase in export volume resulting from government incentives have assisted in promoting this sector within South Africa, and, therefore, local manufacturers must prove their compliance to these standards so that upstream firms in the industry can continue to export.

In Figure 4, criteria for choosing conformity assessment providers is listed. Twenty-eight (nearly 30%) SMME respondents choose their conformity assessment service providers based on reputation, while less than 17% chose SANAS accredited conformity assessment service providers. However, only three respondents linked reputable service providers to being SANAS accredited, suggesting a lack of knowledge surrounding the benefits of SANAS accreditation.

Pricing, on the other hand, appears to play a relatively minor role in local choice, since only seven (7.3%) SMME respondents rated this as a factor in choosing conformity assessment providers. However, when these same firms were asked about the difficulties encountered when undertaking conformity assessment activities, 24% of the respondents felt that payment proved problematic. Furthermore, 29% of the small and 26% of the medium sized enterprises felt payment was a problem, while

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<sup>15</sup> Product Certification activity was internationally harmonised by the International Accreditation Forum during 2004 in terms of ISO/IEC Guide 65 published in 1996. See [www.iaf.nu](http://www.iaf.nu).

<sup>16</sup> QS9000 is a sector specific set of quality management requirements created and published by the International Automotive Task Force. See [www.aiag.org](http://www.aiag.org).

<sup>17</sup> *Vide* 2.5:53

only 8% of the micro enterprises felt payment was a problem, suggesting an inverse relationship between the cost of assessment and the size of the enterprise.

The most difficult part of conformity assessment, according to 29% of the locally oriented SMME respondents, is complying with the requirements (see Figure 5); payment (24%), understanding the requirements (19%) and finding reputable service providers (16%) follow. Presumably, the fact that South Africa's public and private assessment capacity is internationally recognized through its accreditation body explains the low level of importance placed upon locating reputable service providers.

**4.2. The Export Market.** Companies in South Africa are involved in trade throughout the world, and that feature is accounted for in the data. Nearly fifty-nine percent (58.7%) of the SMME responses to the questionnaire indicated that they were, or would be, involved in manufacture of products for export. The export firms in the survey are involved in many industrial activities, the distribution of which is shown in Figure 6. Fifty-eight percent of the SMME respondents rated Africa (excluding SADC) as an important export target market, followed by the EU (52%) Australia and New Zealand (35%), SADC (31%), and the USA and Canada (28%).<sup>18</sup> The results reported here are similar to those found by Wilson and Otsuki (2004), in which they found Sub-Saharan export focus tended towards the EU, due primarily to former colonial ties, while intra-regional exports accounted for one-fifth of Sub-Saharan exports.

The SMME respondents do not appear to have significant market access problems, as fifty-four percent of the SMME respondents experience no market access problems. However, 35% of the SMME respondents are either being kept from exporting or experiencing delays. Of the thirty-five percent of the SMME respondents having experienced these difficulties, the small enterprise category accounted for sixty-eight percent of the responses.

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<sup>18</sup> It should be noted that respondents were allowed to choose more than one important target market.



Conformity assessment is an important issue for SMME exporters. Fifty-three percent of the export respondents must comply with foreign technical regulations. Fortunately, fifty-two percent of the respondents indicated that they have no problems obtaining information in respect to technical regulations, although thirty-two percent of the SMME respondents indicated having problems accessing information about foreign technical regulations, which suggests that information could be a relatively larger problem for SMME's than for non-SMME firms. The problems faced by smaller firms could result from a lack of capacity, such that enabling an organization to specialize in the dissemination of this information could provide benefits for local export firm.<sup>19</sup>

As expected, export oriented firms are more concerned with foreign requirements than local requirements, while domestic market oriented firms are more concerned with local requirements. These results could point to a difference between local and international regulations, but could also point to a difference in focus and a lack of understanding over which regulations are local and which are foreign. Wilson & Otsuki (2004) found a positive correlation between the share of firms facing domestic technical regulations and the share of firms facing technical regulations in the export market. They also note that many more firms in Sub-Saharan Africa face foreign technical regulations than domestic regulations. However, according to the data discussed here, South African firms appear to face similar domestic and foreign requirements.

In addition to conformity assessment requirements, thirty-four percent of the SMME respondents indicated that they are required to undergo consignment inspection, the process whereby a potential export product is subject to independent verification of the conformity of the product for the importing country. Interestingly, 26% of the SMME respondents indicated that foreign regulatory bodies also inspect their products. The role of government in conformity assessment decisions was further supported by the 16% of respondents, who stated that they are obliged

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<sup>19</sup> For example, Wilson & Otsuki (2004) indicate that 82% of firms not exporting to the EU attribute this to a lack of information from the home country's export promotion office.

to undergo government laboratory testing. Due to the preferences in both Europe and the United States for private sector conformity assessment service provision, need for government testing could indicate a problem facing SMME's trying to export to less developed regions, which we have seen constitute an important target market.

Given the importance of conformity assessment for exporters, this research undertakes to determine whether or not there are any differences surrounding which services are viewed as the most important by the exporting SMME's relative to the domestic SMME's. As with the domestic market, (see Figure 7) ISO 9001 certification, according to forty respondents, heads the list as the most important foreign conformity assessment requirement (41.7%). Product certification (26%), laboratory testing (10.4%), ISO 14001 certification (8.3%), and consignment inspection (8.3%) round out the five most important requirements.

The export respondents placed relatively less importance on established conformity assessment requirements, with more importance placed upon product certification than the domestic firms, which suggests that foreign markets could be moving away from broad standards, such as those embedded in ISO 9000, towards more technically rigorous requirements attached to product certification. Due to the fact that laboratory testing is an integral part of product certification, the fact that exporting SMME's reduced the separate identification of laboratory testing as an important assessment activity could be the result of increased integration in the product certification assessment activities in foreign markets, further supporting the view that foreign markets could be moving away from general requirements.

A very similar proportion of domestic oriented (9.4%) and export oriented (8%) firms felt the relatively new ISO 14001 environmental certification was important or very important. Although the current need is low, the local and overseas demand for third-party certification of compliance to international environmental management standards is likely to rise substantially.

Despite the importance of conformity assessment activities, SMME's in South Africa are, fortunately, very able to undertake those activities within South Africa. Seventy of the 96 (73%) SMME respondents could carry out the needed conformity assessment activities in South Africa. Only six percent of the respondents indicated that they had to make use of foreign conformity assessment service providers. Similar to the results presented here, Wilson and Otsuki (2004) find that 80% of the South African firms can use their local conformity assessments in their export markets. The results of the survey presented here, as well as the one analysed by Wilson and Otsuki, suggest that South Africa's conformity assessment activities are internationally reputable.

In addition to the reputability of the local services, the services are provided inexpensively. Only seventeen percent of the SMME respondents rated conformity assessment for export as expensive. Kruger (2003) iterates that the relatively low percentage response to this question could be attributed to the fact that South African public and private conformity assessment capacity, which is internationally recognized through local accreditation, is available. The role of accreditation, in providing an independent measure of competence, has, according to the results of the local survey, contributed to ensuring that local costs related to the highly competitive activity of conformity assessment are appropriate for the service provided and the benefit obtained. According to Maskus et al. (2004) an OECD survey of 55 firms in the UK, US, and Japan, showed that additional compliance costs associated with meeting foreign technical requirements can be as high as 10%. Another Organization for Economic Cooperation and Development (2000a) study estimated that standards and regulations, combined with the costs of testing and compliance certification for the export market, added from 2% to 10% excess to the costs of production oriented only towards the domestic market.

Although South African firms are able to purchase reputable and internationally recognized conformity assessment services locally, many other countries in Sub-Saharan Africa do not have access to such facilities. Since 70%, see Wilson & Otsuki (2004), of exporting firms face mandatory standards and technical regulations, which are perceived as important for entering export markets, those requirements may discourage firms from entering export markets. South African exporters face an additional hurdle when they try to export within the Sub-Saharan region. Many Sub-Saharan countries rely upon consignment inspection, which is often performed by government bodies. The lack of transparent regulations further discourages local firms from exporting to the rest of the region.<sup>20</sup> Therefore, further harmonization of standards and technical requirements or a set of regional recognition agreements would benefit all firms.

## 5. CONCLUSIONS AND POLICY RECOMMENDATIONS

In this paper, the findings from a survey of SMME firms in South Africa have been presented. Unfortunately, the response rate for the survey was very low. Although the results presented here correspond to what other research has learned about small, micro, and medium sized firms in Africa, especially regarding their beliefs about conformity assessment and exporting, there is not enough available data to determine the actual costs of assessment services, especially on export activity, or to determine the true extent of non-tariff barriers to trade. Generally, this research presents a landscape in which South African firms are able to participate in the international community, primarily due to the well-established conformity assessment industry in the country. Furthermore, firms have a strong grasp on what is needed or can generally access that information. These South African firms are able to locally access the services that they need; however, the research points to the need for improved information flows from the local accreditation body, SANAS, since firms did not associate reputable firms with SANAS accreditation. Despite

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<sup>20</sup> The lack of transparency is often decried as the reason for corruption, as government officials use their position to extract additional payments from firms or individuals.

the generally good news, however, many obstacles remain, especially for the smaller enterprises.

The majority of the surveyed firms felt that Sub-Saharan Africa was their most important target market; yet, exporting to that region is hindered by less transparent rules, primarily in the form of consignment inspections. Locally, the research points to the need for improved recognition of pre-shipment inspection, in order to reduce delays within the Sub-Saharan region. Considering the current use of consignment inspection in Africa, an organization such as NEPAD should address the role of consignment inspection as a conformity assessment activity, in order to ensure appropriate harmonisation and transparent application of criteria.

Furthermore, smaller firms are experiencing greater difficulty accessing export markets or even accessing the relevant information regarding conformation to the appropriate standards in the relevant export market, which may be resulting in lower export activity than is desired. The dearth of information regarding foreign regulations crucially limits a firm's ability, especially if they are smaller firms, to forecast the likelihood of rejection of their exports due to technical regulations. It is, therefore, vital that such information is both locally available and easily accessible, if SMME's are to successfully understand and prove compliance to these requirements. Local agencies specifically created to support SMME development should be encouraged to become a source for such information, as a value adding service, while promoting this information to local SMME's.

Given that only six percent of the local respondents indicated that they had to make use of foreign conformity assessment service providers, there is a benefit to having a local, internationally recognised, accreditation body to support and enhance the reputation of South Africa's technical infrastructure. The creation of acceptable accreditation infrastructure is obviously an area where South African expertise could be offered to assist others on the continent. The indirect benefits of such an approach could include the assistance of local SMME development, whilst

offering the potential for mutually beneficial trading relationships between African states.

The duplication of effort associated with identifying and complying with market specific conformity assessment procedures is costly, and effectively keeps some SMME's out of certain markets. Unfortunately, there was insufficient feedback by the respondents to this survey to allow the identification of the specific nature or complexity of the conformity assessment and related problems currently confronting local SMME's that would like to either expand their current export initiatives or address new markets. Given the local success in overcoming some aspects regarding non-tariff barriers through the use of accreditation, further investigation is required to determine where problems remain.

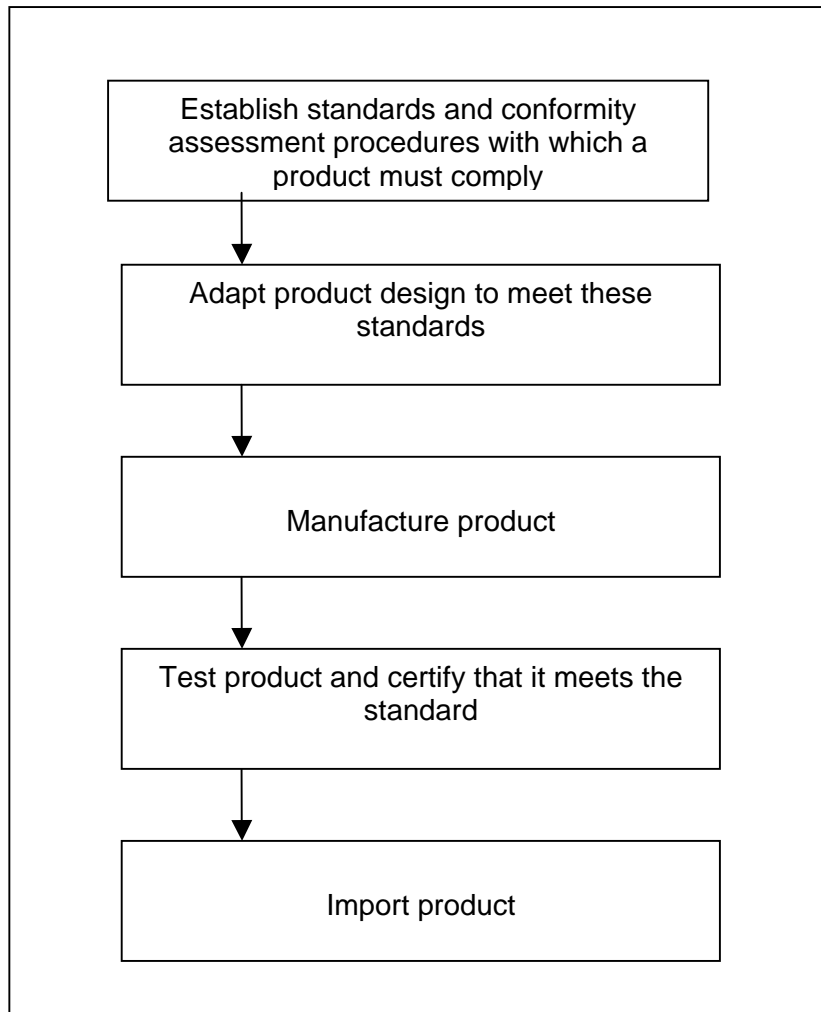
Finally, the results of the research suggest that developed foreign markets could be moving away from the more generic requirement for quality management systems such as ISO 9000, toward the more technically rigorous requirements attached to product certification. Given the costs associated with implementing such systems, it is vital that further research examines this apparent link to ensure that both the local accreditation body and local SMME's appropriately focus their future efforts and expenditures.

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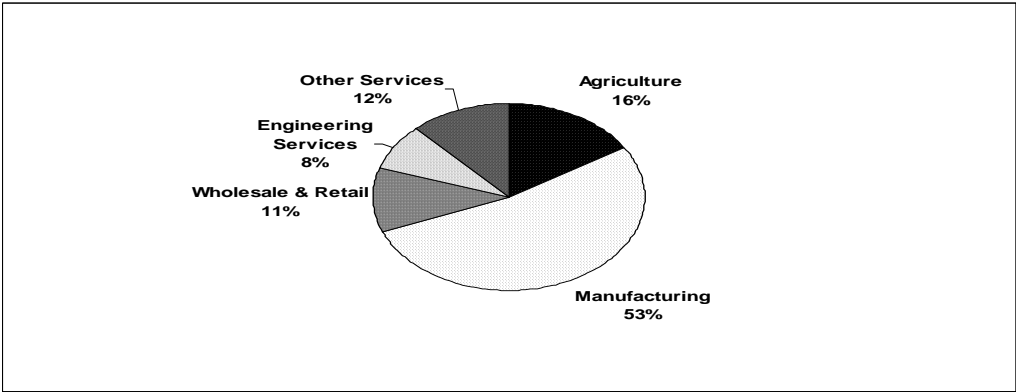
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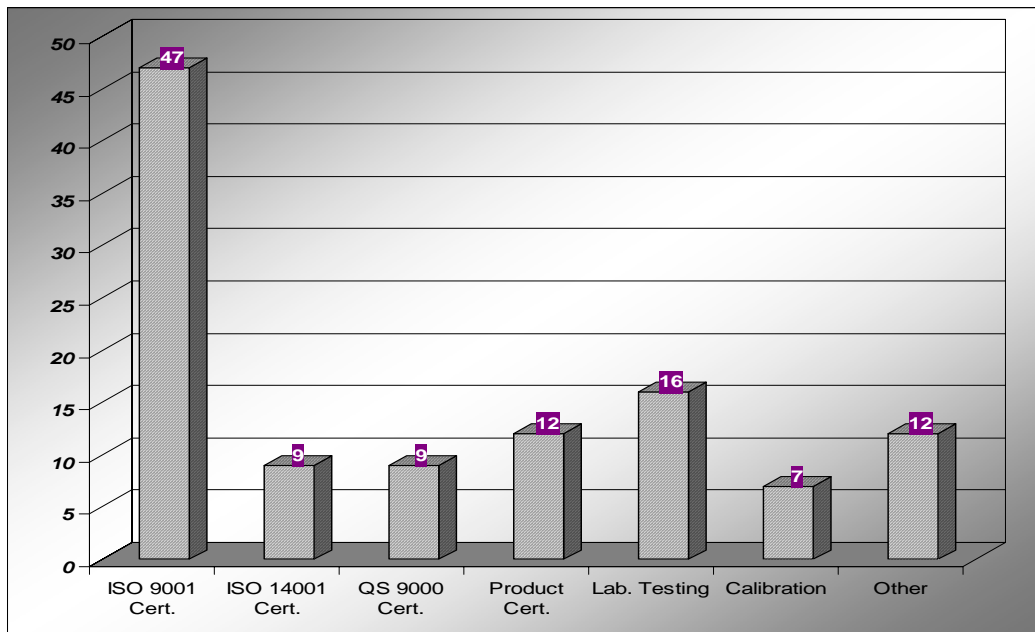




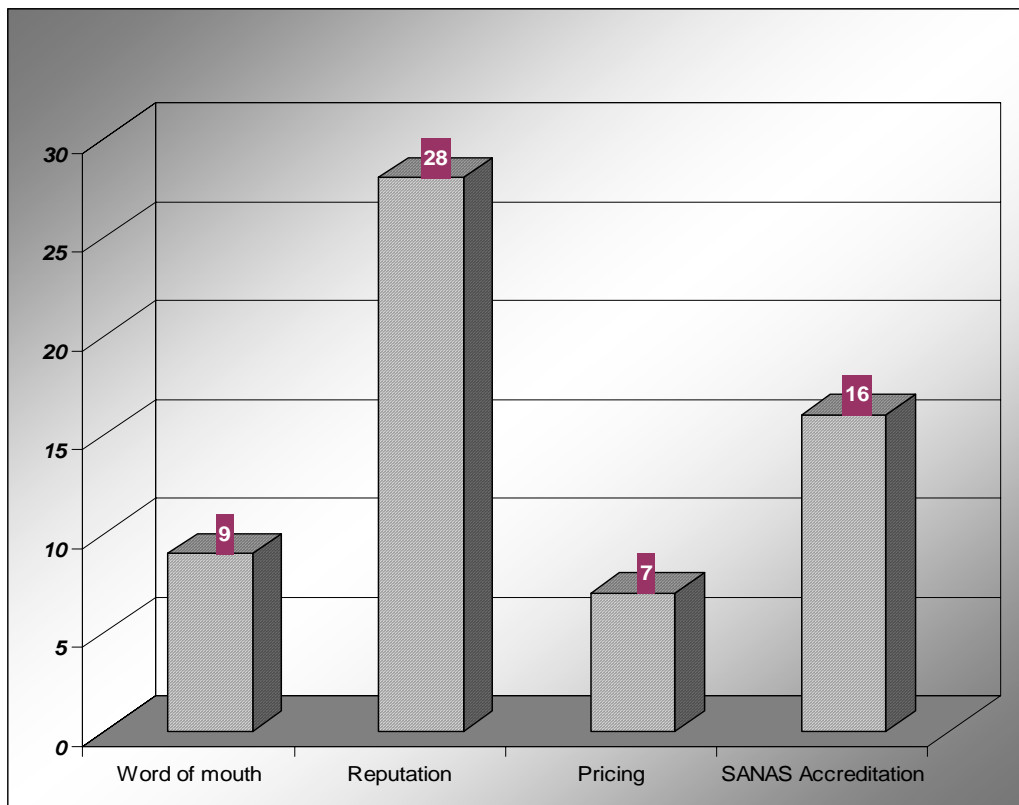
**Figure 1: Standards Compliance Process for Export Markets (OECD 2000a:13)**



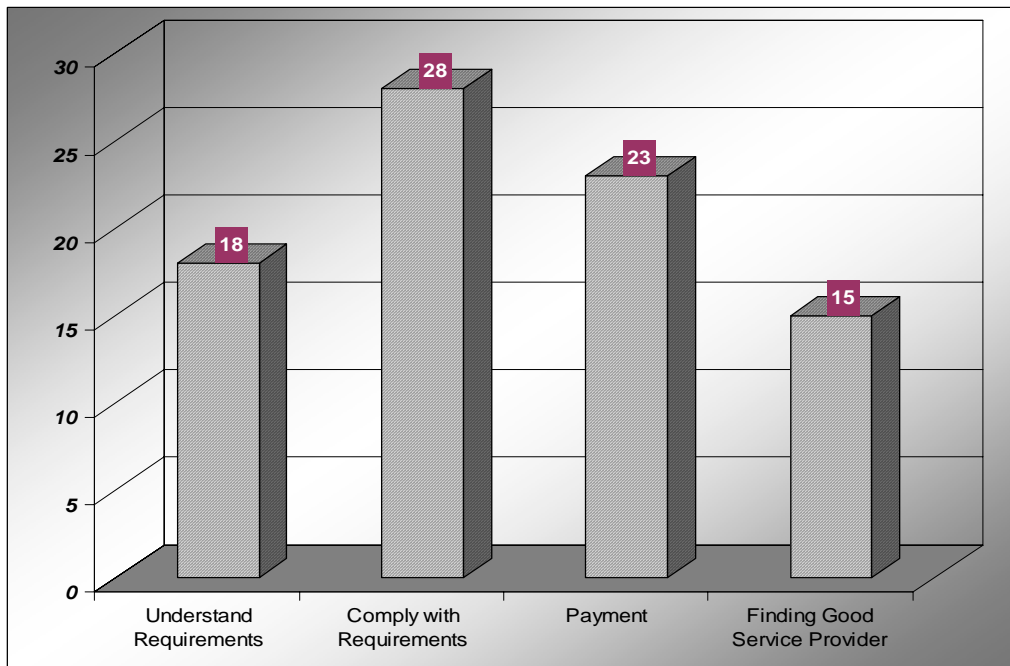
**Figure 2: Distribution of SMME Responses by Business Sector**



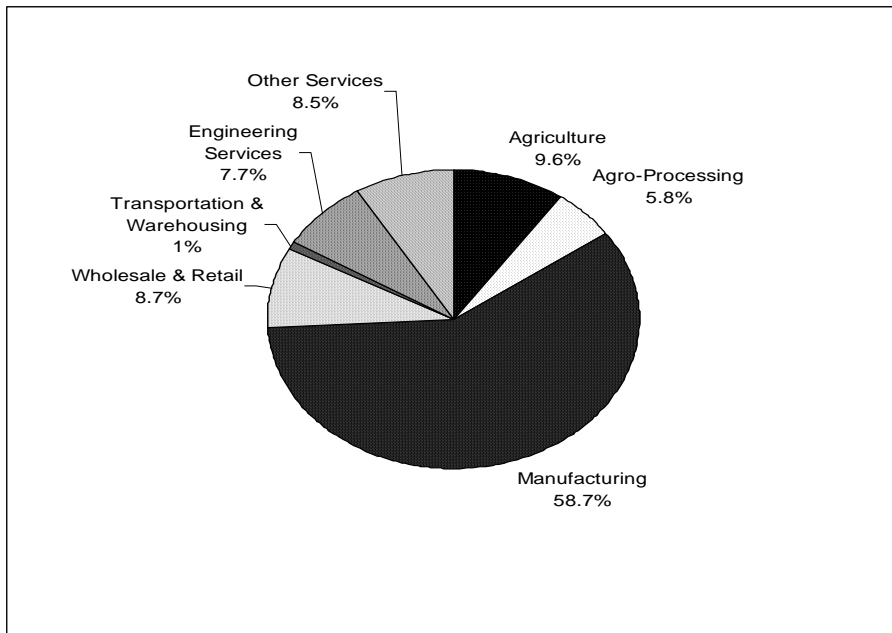
**Figure 3: Most Important Conformity Assessment Services**



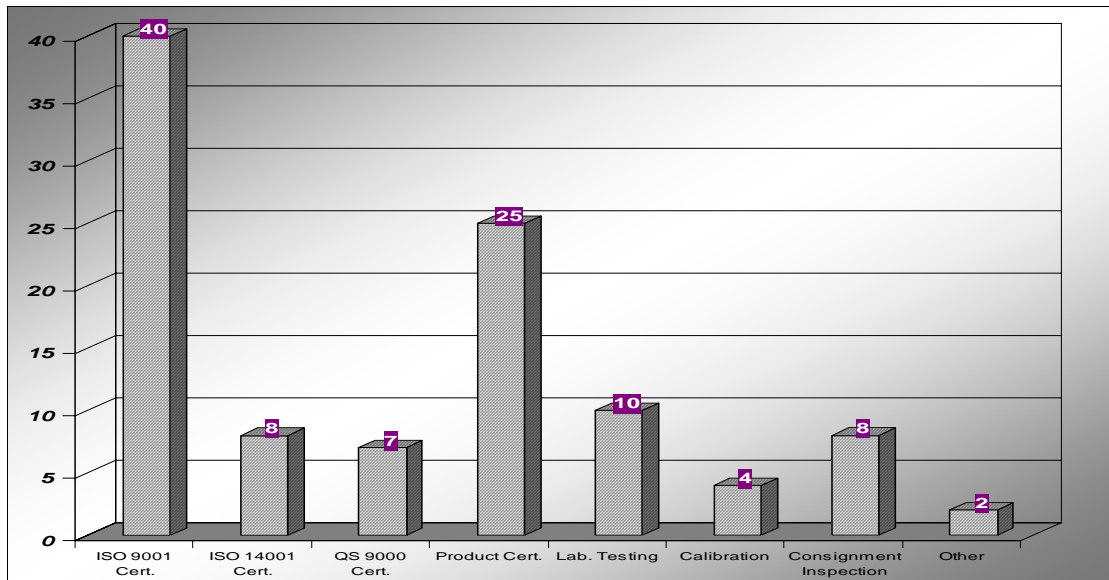
**Figure 4: Criteria for Choosing Conformity Assessment Service Provider**



**Figure 5: The Most Difficult Aspects of Conformity Assessment**



**Figure 6: Distribution of all SMME Responses by Export Sector**



**Figure 7: Important Foreign Client Conformity Assessment Requirements**