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Robert Grigg  
*Griffith University*

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# Client Perceptions of the Value of Vendor Quality Certification

**Robert Grigg**

*rgrigg@cit.gu.edu.au*

*School of Computing and Information Technology,  
Griffith University, Brisbane, 4111 Queensland Australia*

*Home Address: 6 Duart Court, Carindale QLD 4152*

*Phone: 3395 1822 Fax: 3395 1822*

## **Executive Summary**

Many countries around the world have instituted schemes aimed at increasing the credibility of quality certification, with varying degrees of success. The criteria of success for such schemes may vary vastly depending on the client. Initially the main reason for introducing these schemes has been due to the failure of a large number of IT ventures, resulting in clients requesting such measures be introduced. This questions whether current schemes of quality certification are offering clients the value they require. The ability of clients to differentiate the value of quality certified vendors against non-certified vendors is important both now and in the future of the quality movement.

The following paper is on client perceptions of vendor quality certification. The article covers the following issues:

1. Historical perspective of clients experiences with quality and non-quality certified vendors;
2. Actions of government on quality certification and the resulting impact of this on clients;
3. Problems that occur between vendors and clients in relation to quality certification; and
4. The role of the 3<sup>rd</sup> party quality accreditors.

The findings of the paper demonstrate that vendors need to make more visible the quality elements for clients. This effectively means maintaining higher communication level with the client. Vendors should focus more on client satisfaction rather than marketing competitiveness when on the topic of quality certification. Vendors should not presume that they should charge more because they are quality certified. Third party quality certification assessors should play a more central role in ensuring that clients know both of the schemes, and of the benefits such schemes have to offer. The paper then focuses on future implications, highlighting the need to educate both vendors and clients in what quality certification is, and how the benefits are gained.

## **Abstract**

This following paper will study the perceptions and social issues currently held by clients about quality certification of vendors in an attempt to establish why there is such a diversity of opinions regarding this issue, with an emphasis on the future of such schemes. This paper will show the role in which software certification plays from the perception of the client. The paper highlights areas of importance for the software certification movement. The article confirms the importance of quality and its role to play for vendors and clients alike, especially for vendors with international competition. It also identifies that throughout an outsourcing relationship, effective communication will overcome various difficulties. The main objective is to avoid the occurrence of clashes whereby different company standards or procedures effect important operations. This article emphasises the need for certification schemes to assume a higher profile for the client. This includes the need for vendors to extend benefits of quality certification to the client so that the more positive experiences are passed on.

## **1.0 Introduction**

With the advent of quality certification schemes in the IT industry, there has also risen many controversial issues. Firstly problems occurred with clients becoming 'burnt' from not being able to distinguish the quality difference between vendors, and ultimately making the incorrect choice. Secondly, clients associated a higher price with quality certified vendors. Finally, client knowledge regarding certification schemes has changed significantly. IT leaves a lot to be desired when proving the value of services to clients, especially when issues regarding software certification are involved.

Based on a literature review of journals, previous research, and personnel research performed for my Honours degree in IT at the School of Computing and Information Technology at Griffith University, Brisbane. The research consisted of 5 case studies of outsourcing relationships during 1996. This research included both interviews and surveys of the companies involved. This paper will identify how quality certification schemes are being accepted and utilised by clients. The literature focuses on Australian IT companies in both the historical and current context of quality certification. This information will be relevant to both quality certified and non-certified vendors in the IT industry.

The paper is divided up into the following sections:

Section 2.0 covers historical factors that influence the client's view of quality certification;

Section 3.0 shows how client's experiences can influence quality;

Section 4.0 details how differences in client vendor relationships can effect the level of quality;

Section 5.0 looks at the impacts of government actions in relation to quality certification;

Section 6.0 focuses on the importance of the perception of the client in relation to quality; and

Section 7.0 outlines the future role for software quality certification in the IT industry.

The purpose of this paper is to concentrate on the area of software quality, specifically in the area of quality certification. Quality certification refers to an organisation certified with a quality standard (e.g. ISO 9001). For the purpose of this paper when discussing the client vendor relationship, the term client will refer to the organisation seeking IT services and the term vendor will refer to the organisation that provides IT services. Third party assessors refer to a company that is qualified to assess the quality level of another company with the intention to grant a level quality certification to that company.

## **2.0 Clients Historical Experiences**

The reputation that quality certification has with clients is dependent upon their exposure to quality schemes and IT development experiences. I have established from surveys among 25 different clients that the influences on client's views of quality certification include the following aspects:

- 1) Their experience with IT developments;
- 2) Associate's experiences with IT developments;
- 3) Media coverage of IT developments;
- 4) Government actions concerning quality certification requirements; and
- 5) Their knowledge of what quality is in the IT industry.

Clients that have experienced failed or undesirable development experiences will have found that the surrounding conditions of that failure greatly affect future decision making in relation to IT projects. Coleman (1992) observes that motives behind the movement of clients focus on software quality certification have been caused by the occurrence of failed developments. Such an influence affecting the client includes the media with its extensive coverage of failures such as the cancellation of the CS90 project in Australia. This occurred in 1992, and was estimated to have cost Westpac Bank A\$100 million to A\$146 million over budget. This example of a failed development would influence clients to formulate ways of avoiding similar predicaments. The importance of a vendor being quality certified is almost mandatory for clients that have had bad experiences with non-certified vendors.

The changing perceptions of clients regarding quality may not be restricted to projects of total media covered failure. Clients are more likely to pay attention to quality where they have experienced a continual level of trouble on a system that was workable, however required a high degree of maintenance to operate. The occurrence of these IT development experiences have convinced clients to differ there selection criteria next time a vendor is considered for IT development.

The experience of unsatisfactory IT developments is rapidly shared amongst clients. Over 80% of clients interviewed stated that in planning a new outsourcing development, they would either look at other organisation systems for feed-back, or look at the past developments of respective vendors involved in the tendering process. The reasons for this include the fact that many vendors are required to provide proof of their success with previous clients, whereby clients demand to see reference sites in the aim to dig deep into the vendors history for cost saving insights. Kodak (Kodak Imaging Release Convention 1996) in their presentation to clients of their latest imaging systems, discarded their previous approach of highlighting the amazing functionality and service that a client

would receive. Instead they based their whole presentation on 'reference' sights (being satisfied clients) as a display of their quality.

### **3.0 Client Culture & Power Relationships**

In the move to make IT productive clients have experienced a range of problems, both serving to educate and make them more proactive in respect to quality measures. Clients develop their own quality practices, which fit the companies profile and experiences. These quality measures are extremely valuable to the client. "For a customer, software quality is a serious issue. Even though the state of software-engineering technology is immature, it is possible to increase software quality" (Onoma and Yamaura 1995).

An example in my research of the importance of quality to the client was observed in the operation by a vendor to update a database, which involved the unloading and reloading of data from database to database on a mission critical site. The vendor being quality certified, made out a list of procedures to be confirmed and modified to fit in with the operations of the client. The time for the conversion was only one hour due to the usage of the database. Upon commencement of the change-over, certain employees of the client were distressed about the way the procedures were being performed. The client insisted that extra pointless tasks be performed to meet their individual standards of quality. The vendor had spent two days performing testing for the exercise according to the previously agreed guidelines. The actual change in plan caused the installation to need more than two hours, the database failed to be changed over, and the client assumed it was the lack of a quality approach from the vendor.

The result of this situation was to have the client misrepresent the quality certification scheme to upper level management. This result can be blamed on a number of causes, however it mainly highlights the fact that previous experiences of clients cause an accumulation of special quality procedures. These procedures are sometimes not even documented, although they are performed even if they have no outcome on the job at hand.

Another factor that became quite obvious in one of the case studies was the relationship of power. One example drawn from a case study highlights how quality can undo itself when one of the partners in the relationship is over-powering.

The project was to develop a library viewer for the public to view pictures. The vendor initiated the design with overwhelming expertise, especially when it came to quality. The vendor stated, 'you cannot use a mouse, because it is not suitable for the public.' Secondly the vendor reasoned that there was a need for special key combination exit, this including a password. Finally the vendor also decided that the need to make redundant the operation of anything else on the computer at the same time as this viewer. All these guidelines were followed by the vendor with the vision that the end result was a quality product. Not for the client although. At the hand-over it was found that everything was great, until the project manager was assigned elsewhere, and a second manager stepped in. The client was happy, but they wanted the mouse, they hated the security exit, and wanted to run other programs. So in the vendors efforts to strive for quality, the real desired results the client wanted was somewhat overlooked.

This observation highlights how clients that are submissive often do not know what to expect, and therefore are unsure how to get the results they want. The client handling the project in the above example later commented 'At least this project got finished, all other ventures so far are either over-time, or complete failures.' For most clients that experience such developments, their view on such things as quality certification, if indeed it was a selection criteria for the vendor, will diminish in value.

### **4.0 Working with the Wrong People**

The level at which the client organisation communicates with the vendor, and vice versa, can determine the success quality certification has with the client. The previous case study addressed in Section 3.0 found that the vendor failed to carry out maintenance even with the stringent application of quality procedures, this being a result of client actions. My finding is similar to Fried (1995) who indicated that when the vendor deals directly with higher levels of management, it was found that problems were not so easily brushed onto the vendor. However when the vendor deals mainly with

the end-users the vendor's reputation may begin to suffer, including the reputation of the associated quality certification scheme.

In light of the previous details it can be seen that vendors target higher levels of management, with the aim of getting the job done. This objective has been found to cause disgruntled end-users to dismiss the importance of quality certification. In research performed by Davis et al. (1993) it was discovered that the highest priority for the adoption of quality assurance was commercial success, with the lowest priority being the satisfaction of the user. In the survey of vendors the same trends were reflected. In my research seventy percent of vendors wanted to be certified to either gain tenders for government related jobs, or to place them better competitively. Correspondingly, over sixty percent of clients would select vendors only if they were quality certified.

The clients inability to recognise quality makes it difficult to change their perception about quality certification. Many clients doubt quality certification schemes, this including the methods upon which the schemes are based. Importance therefore, must be placed on communicating the quality advantages from the vendor to the higher levels of management, thus resulting in a more successful impact on the clients perception of quality certification.

Inevitably difficulties will arise in the lifetime of any outsourcing relationship. These problems diminish the clients view of quality. Quality accreditation may gain a discreditable reputation with clients through time when, "certification schemes fail, or through the simple fact that failure in systems development are sometimes to do with problems outside of the scope of quality accredited control" (Ahituv and Neumann 1990). The relationship between the client and vendor plays a major role in both the success of the relationship, as well as the overall resulting perception that the client has on quality certification.

#### **5.0 Client Perceptions of Government Actions**

Within Australia firm action has been taken by government in relation to quality certification for vendors. "The Australian government allowed their departments to only outsource vendors that were quality certified to AS3563" (Chmiel and Wilson 1992). Chmiel and Wilson (1992) also stated that these actions were given significant press coverage, and resulted in clients realising that there were substantial advantages in utilising vendors that were quality certified.

In most cases clients were uncertain as to whether quality certified vendors would differ in any way or provide them with better results. "The Australian government made it compulsory for tenders to be quality certified, therefore diminishing the need for the government to assess each vendor themselves, and utilising instead well qualified third parties to perform the process" (Phippen 1992). This transition of the vendor quality assessments to a third party has made the task of selecting vendors more effective both economically and technologically. In my research it was also seen that over seventy five percent of clients thought that quality certification played a role only in obtaining a high quality end-product.

The importance of quality certification was to surpass many previous expectations both within government and non-government business enterprises. "The effect of government moving to such a conditional arrangement has had an impact on the importance of quality certification in the IT industry" (Phippen 1992). Clients of the IT industry were left with no misconceptions about government standards relating to software certification. Adoption of quality certification as compulsory throughout government organisations as well as customers demanding increased levels of quality certification, has resulted in significant amounts of industry reluctance disappearing in relation to quality certification (Phippen 1992). Government involvement has reinforced the importance with vendors as well as clients, of quality standards in the IT industry (see Section 4.0, paragraph 2).

#### **6.0 Client Perceived Quality Certification Values**

The main concern which clients possess when acquiring a vendor is the final product that they will receive. "Positioning starts with a product. A piece of merchandise, a service, a company, an institution, or even a person.... But positioning is not what you do to a product. Positioning is what you do to the mind of the prospect. That is, you position the product in the mind of the prospect." (Reis and Trout 1982). In making the product attractive to the client, vendors will use the dimension of quality certification to indicate some added value to the product. This dimension positions the product

more competitively in the mind of the client. For the positioning of product quality on a level of importance from a client perspective, Lehmann and O'Shaughnessy (1974) demonstrate that clients hold product quality at approximately a ranking of four out of eleven. Although it must be noted that this ranking varies depending upon the selection situation and the client involved.

Increase levels of quality are required due to its role in influencing the customer's perception. It was mentioned at a seminar entitled "Building Quality Systems - Exploiting BS5750/ISO9001", given by Ian Stewart and Brian Hepworth (1992) in London, that an inherent competitive advantage in software certification, was the "minimised perceived risk by customers". Utilising quality certification in marketing is seen as a competitive advantage, and therefore a respected certification scheme will hold a great deal of value in helping vendors win new clients.

The client will most value quality when selecting a vendor. A key factor is that a client can understand and associate added quality when faced with the quality certification scheme. "The certificate is only as reliable as the certifying body" (Classe 1991). The fact is that if the client values quality highly but does not value the particular certification scheme, then the advantages of the vendor being quality certified are arguably canceled out.

### **7.0 The Future for Quality Certification**

From the results of my studies previously mentioned in Section 3.0 and my literature review, Australian businesses can be perceived as highly quality conscious - or sometimes overly cautious. The culture tends to vary between that of the U.S. and UK when focusing on internal quality business operations. This culture has seen clients react favourably to a calling for quality certification schemes. In the UK, about sixty percent of the people in all segments were willing to pay an average of twenty to twenty five percent extra for a certified product (Jobber et al. 1989). In Australia two presumptions are often made by clients. This includes the presumption that quality certified vendors are more expensive, and that non-certified vendors should be proportionally cheaper than certified vendors. Clients utilise these assumptions and expect to procure the services of non-certified vendors for a percentage less in price than certified vendors. Clients are realising that quality is important in the IT industry and short-cuts like this will become difficult to achieve.

In the US, the quality certification schemes and their associated costs have been under open scrutiny. To help justify costs to the client for quality, modern inspection processes are used with checklists composed of questions that reveal whether each objective is achieved on each part of the system (O'Neill and O'Neill 1991). O'Neill and O'Neill go on to point out that, "quality has become a national goal. The US's industrial policy has determined that quality is a necessity not simply something nice to have if the nation is to compete in the world marketplace. This quest permeates industry, government, and academia." This direction of the industry is a formidable tool in changing the client's values regarding quality certification. Australia is experiencing much the same movement regarding quality certification. Business, government, and academia can be seen as working towards increasingly successful schemes of quality certification for the IT industry.

When clients pay more for a service (especially when they could have paid less), the client will expect more. In buying a piece of shrink wrapped software a client will compare between each of the products on the market, and select the product on the merit of what the client perceives has quality (Szajna and Scamell 1993). The trouble with entering a client-vendor relationship is that it is often based on credentials rather than the actual product provided by the vendor. In the situation of a client having to spend more, clients have discovered this does not necessarily mean that they will receive a better product, just like being quality certified is not a fool proof guarantee either. Clients are realising that the vendor being quality certified (sometimes with the associated extra cost) is an indication that the value contributed by that vendor will be more advantageous.

Clients perceptions of quality are shifting away from the concerns of expenditure. There has been a large movement of clients toward software quality accredited vendors. Chmiel and Wilson (1992) state that "Australian organisations must address the issue of software quality if they are to remain competitive or, indeed, survive". This change by clients is competitively a factor they can no longer ignore as costs of IT are meeting tighter controls. "Customers today - whether they be institutional customers or end customers - take a more active interest in what their providers provide and how they function" (Normann 1991).

The experience clients have with quality standards is resulting in the alteration of internal standards, requiring external sources of IT to meet or exceed these internal expectations. The industry appears to be gradually increasing its awareness of the benefits of managing software quality, and of the increasingly important commercial consequences in the market place for those who do so (Stewart and Hepworth 1992). For the record of past failures and experiences, clients seem to be looking for quality to try and reduce costs associated with IT.

## 8.0 Conclusion

This paper has endeavored to show the role in which software certification plays from the perception of the client. In doing so, the paper highlights areas of importance for the software certification movement. This article confirms the importance of quality and its role to play for vendors and clients alike, especially for vendors with international competition. It also identifies that throughout an outsourcing relationship, effective communication will overcome various difficulties. The main objective is to avoid the occurrence of clashes whereby different company standards or procedures effect important operations.

Vendors need to give clients a better insight into the difference that quality makes to the product they will receive. Insights, such as how quality may reduce the risk of software failure; how to perform subsequent maintenance activities, and how to prolong the perceived usefulness of the product. This article emphasises the need for certification schemes to assume a higher profile for the client. This includes the need for vendors to extend benefits of quality certification to the client so that the more positive experiences are passed on.

This paper demonstrates that clients presume quality certified vendors are more expensive. Vendors should be able to provide quality certifiable services at a rate comparable to non-certified vendors. The advantage of such competitive pricing would result in the client choosing a vendor that is quality certified. This article maintains that vendors should focus on client satisfaction rather than market competitiveness when on the topic of quality certification. Within an outsourcing relationship it can be seen that the stronger partner will over-power quality related procedures of the other. The results of this can lead to misunderstandings of the value that quality certification contributes.

In all aspects of vendor-client outsourcing relationships, quality certification helps contribute to a more successful venture. The increased utilisation of software quality certification will only succeed if the industry focuses on providing more understandable benefits for the client.

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