
Outsourcing and quality performance: Malaysia's public works department

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Keywords

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Abstract

A brief quality assessment exercise conducted among officers of Malaysia's Public Works Department (PWD) on outsourced quantity surveying services affirmed the view that the consultants' performance was generally unsatisfactory. The performance dimensions cover from preliminary estimates and cost plans to final accounts. The result of this purely academic exercise generated sufficient interest among top decision-makers at PWD's Contract and Quantity Surveying Division to render quality improvement initiatives feasible. For a large public sector organisation usually afflicted with inertia, the changes that have taken place within such a short space of time are encouraging. What this case study points to is that given sufficient motivation, even a simple quality assessment exercise is able to prompt quality changes.

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Introduction

Despite having significant in-house quantity surveying (QS) expertise, Malaysia's Public Works Department (PWD) regularly engages independent consultants to undertake some or all of the QS functions on projects. Constrained from employing more technical staff despite mounting public construction expenditure, the practice of outsourcing relieves work pressure. While the PWD QS staff have long endured, at-times, unsatisfactory quality of services rendered by outsiders, there has been no effort to narrow their performance gap. For the first time, a simple quality assessment exercise was recently conducted to gauge the perception of PWD staff about the service quality of the PWD-engaged QS practices. What was only meant to be a simple academic exercise motivated top management at PWD's Contract and Quantity Surveying Division to initiate the quality improvement. This paper presents the results of the survey followed by the specific steps taken by the PWD to safeguard public interest.

Research method

Quality assessment survey forms were sent to selected PWD's QS personnel, who regularly deal with independent QSs. While staff in the various state-level offices (in QS units) were also approached, the majority of respondents were from PWD headquarters in Kuala Lumpur (in the Contracts and Quantity Surveying Division) to reflect their higher propensity to deal with external service providers (Table I). Of the 55 questionnaires that were distributed 47 were returned completed (i.e. 85 per cent response rate).

Satisfaction levels were scored against 12 performance criteria that PWD had long defined although not applied. While not as sophisticated as some performance measurement systems (Hoxley, 2000; Kaplan and Norton, 1992; Lee and Howard, 1994), the organisational impact of this exercise was profound. Respondents were given the opportunity to assess up to four QS consultants of their own choice. Overall 69 firms made up the sample population. Multiple feedback on



Table I Distribution of questionnaire respondents by location

Location	Number
PWD headquarters	19
Kuala Lumpur	2
Perak	3
Selangor	6
Johor	2
Terengganu	2
Kelantan	3
Melaka	3
Kedah	1
Pahang	3
Penang	1
Total	45

specific firms by different respondents was averaged out to obtain single figures. For the purpose of this paper, the results were aggregated to reflect the overall quality of the QS consultancy services rendered to PWD.

Theoretical review

Under pressure to improve the performance and cost efficiencies, public sector organisations in the UK, US, Australia and New Zealand were compelled to outsource (Boston, 1995; Donahue, 1989). An international survey among the US and European companies found 14 objectives for outsourcing that can be conveniently clustered into three groupings (Kakabadse and Kakabadse, 2001). First, to achieve best practice across the enterprise and also to enhance the cost discipline and control skills of managers. Secondly, to improve the service quality and management by focusing more on the core competencies of the organisation. Finally, to gain access to new technology and skills, reduce headcount, enhance the organisation's capability to develop new products and services and reduce capital costs. Other scholars have produced similar lists (Beyers and Lindahl, 1996; Coffey and Drolet, 1996).

Several writers have argued that contracting out is not a panacea (Stean and Walker, 2000). In certain instances, in-house service provision is more efficient than market reliance. Organisations contemplating outsourcing must

consider the following risks involved (Lonsdale and Cox, 2000):

- loss of core activities,
- being leveraged by suppliers,
- loss of strategic flexibility,
- suffering interruptions to supply,
- receiving poor quality of supply,
- a fall in employee morale,
- a loss of internal coherence,
- confidentiality leaks, and
- loss of intellectual property rights

Making outsourcing decisions require proper estimating of the cost of a service or product, the time horizon of the outsourcing decisions and any associated opportunity costs (Kee and Robbins, 2003). Cost pertains to not only contract price but also monitoring financial and technical expenses (Prager, 1994).

There is a wide range of outsourcing arrangements: from short-term contracts to full ownership of and, or, merger between service purchasers and service providers (Bensaou, 1999). The relationship between two parties in a market transaction must have overlapping motives in order to enter into, develop and maintain a relationship (Dwyer *et al.*, 1987). The commercial relationship will continue for as long as the overlapping motives remain. Having externalised a particular service, the service recipient needs to monitor the quality of service by the provider, a task that is difficult for public sector organisations that traditionally lack the necessary skills and capabilities (US General Accounting Office, 1997) or are short-staffed (Prager, 1994). Other possible barriers, public sector organisations might face, include the appropriation system that controls public enterprises in accordance with government rules, the political control over such organisations and organisational culture that treats the political masters, not citizens, as customers (Madsen, 1995).

PWD

PWD was established in 1872 during the British occupation. In 1956, it was placed under the Ministry of Public Works (then known as Ministry of Public Works, Post and Telecoms) when the latter was established. At present,

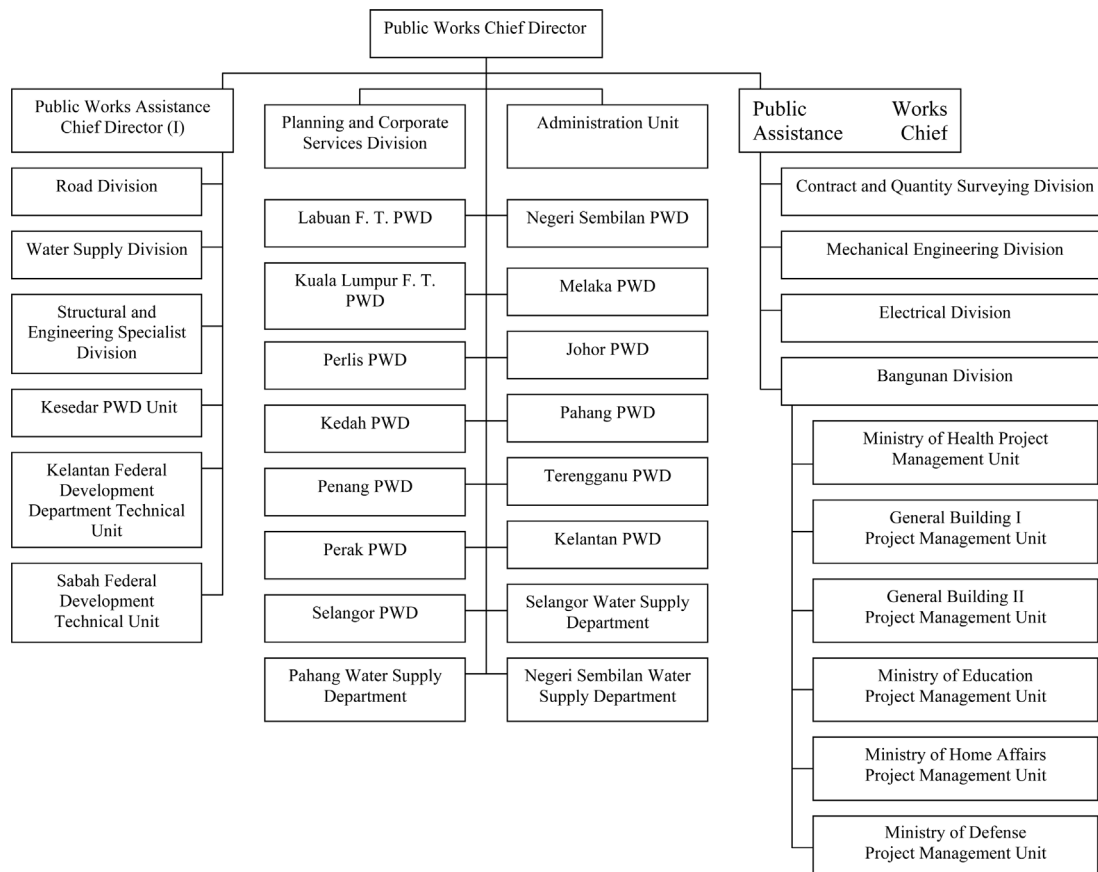
PWD has many semi-professionals and professionals in the engineering, architecture and QS disciplines. PWD's clients are other ministries, federal and state governments.

PWD is the largest construction project-based organisation (PBO) in Malaysia with an elaborate organisation set-up (Figure 1). PWD has in-house QS expertise. The Contract and Quantity Surveying Division located in the Kuala Lumpur headquarters has 166 staff, consisting of 51 qualified quantity surveyors, 43 technical assistants, 34 technicians and 35 non-technical workers. Experts also reside in other PWD divisions such as Mechanical Engineering, Building (further dispersed among the various units), Road, Water Supply, Structural and Engineering Specialist and Planning and Corporate Services. PWD's QS personnel are also located in state-level offices, Kesedar (a government agency), Kelantan Federal Development Department and Sabah Federal Development Department, although they can only deal with projects not exceeding

RM5 million in value. Furthermore, they are also placed in other ministries, e.g. Ministry of Finance, Ministry of Health, Ministry of Defence, etc.

Unlike some public bodies in other parts of the world, outsourcing by PWD did not stem from ideological grounds or public sector reforms (Boston, 1995; Donahue, 1989), but rather from sheer pragmatism: to relieve mounting workload that began in the 1980s. To a lesser degree, outsourcing is also to ensure that the private QS practices flourish. With no opportunity to augment its manpower, PWD is not in the position to weigh the risks involved in outsourcing (Lonsdale and Cox, 2000). For the year 2001, for example, the Contract and Quantity Surveying Division provided pre-contract duties to 70 projects to the value of RM2.5 billion and post-contract duties to 111 projects to the value of RM11.7 billion. One-hundred and twenty-one projects valuing RM2.1 billion were passed on to QS consultants.

Figure 1 PWD organizational chart



Unlike the UK that introduced compulsory competitive tendering (CCT) in the 1990s for the purchase of property and construction professional services (Hoxley, 2000), in Malaysia consultants are selected either by the Treasury or PWD depending on the size of the projects or value of the fees. Of all the possible types of outsourcing relationships (Bensaou, 1999), PWD normally engages independent QS firms on project-based contracts. Front line PWD QS have long been aware of their under-performance, thus affirming Stean and Walker's (2000) observation that reliance on the market may not necessarily be better than in-house servicing. But outsourcing persists mainly because of under-staffing. Action (e.g. warning letters, immediate termination, black-listing, etc.) can be taken against under-performers. However, unless very serious, written complaints by PWD engineers and project managers against certain QS consultants were very often ignored. Such behaviour can be attributed to collective exclusion brought about by occupational enclosure (Murphy, 1990). Legislative instrument grants the QS profession, the monopoly over their functions. In undergoing the same procedures of professionalism set by the Institution of Surveyors Malaysia – tertiary education, training and socialisation processes – the ties between the quantity surveyors across the organisational divide is strong (Burrage, 1972), perhaps as strong if not stronger, than their affiliation to their own organisations. Indeed among the consultants are those that began their professional career with PWD. Those that are with PWD at present might move to private practice at sometime in the future. When probed, PWD quantity surveyors conceded that they prefer not to be too stringent with their opposites in the private sector to avoid "ruining their rice bowl". Though not explored, while understaffing (Prager, 1994), capabilities deficiency (US General Accounting Office, 1997) and even inherent barriers (Madsen, 1995), may have contributed to lax monitoring, occupational enclosure certainly exerted a strong influence.

It is not usual for PWD to require the entire range of services offered by QS consultants. The three most frequently outsourced services are preparing work progress evaluation, evaluating

work variations and completing final accounts (Table II) and the tasks that can be categorized as post-contractual. One function least delegated to outsiders is tender evaluation to avoid the risk of sensitive information leaking to interested and influential parties who are keen to secure lucrative construction contracts.

Quality analysis of services rendered by QS consultants

This section dwells on the survey findings summarised in Table III. As mentioned in the introduction, the simple assessment exercise was initially meant to be an end in itself to satisfy purely academic interest.

For financial allocation from Treasury, preliminary estimates and cost plans that are prepared must be contained in the preliminary detail abstract (PDA). Of the PWD-engaged QS consultants, 57.8 per cent met or surpassed the expectations of respondents for this particular role.

According to respondents, 58.1 per cent of the surveyed QS firm population met or surpassed their expectations pertaining to advising construction costs. For government construction contracts, QS consultants need to "rationalise" the price to ensure that the figure offered by the contractor's is realistic.

Of the PWD-engaged QS firms, 63.8 per cent under-performed when preparing the BQ, in terms of accuracy and timeliness, despite the fact that this traditional QS function is one of the more frequently outsourced to independent

Table II Frequency of types of services relied upon by PWD

Service	Percentage
Preparing preliminary cost plan	68.9
Preparing bill of quantities	84.4
Preparing tender estimate	73.3
Preparing tender evaluation	26.7
Preparing contract documents	84.4
Providing formal advice on cost aspects	64.4
Providing formal advice on contracts	53.3
Preparing work progress evaluation	95.6
Evaluating work variation	93.3
Completing final accounts	93.3

Source: Questionnaire survey

Table III Satisfaction levels of respondents to the services offered by independent QS firms

Performance dimension	Fail	Can be improved	Average	Meeting expectation	Excellent
Accuracy in preliminary estimates and cost plans	3.9	3.9	34.3	52.9	4.9
Effectiveness of advice regarding construction costs	2.9	14.3	24.8	55.2	2.9
Accuracy of and timeliness in preparing bill of quantities	1.0	14.3	48.6	35.2	1.0
Accuracy of tender estimates	2.1	5.3	33.7	52.6	6.3
Attentiveness to and accuracy of tender evaluation	0.0	5.6	66.7	27.8	0
Timeliness in preparing tender documents	3.6	7.3	46.4	36.4	6.4
Punctuality in attending site meetings	2.5	2.5	15.7	58.7	20.7
Effectiveness of contractual advice on contractor's claims	2.6	12.0	32.5	46.2	6.5
Accuracy of costing work variation	6.3	13.5	39.6	36.9	3.6
Accuracy of interim payment evaluation	2.6	6.0	26.5	57.3	7.7
Accuracy of and timeliness of final accounts	12.6	15.9	35.2	21.6	13.6
Ability to maintain confidentiality	2.3	1.2	23.3	47.7	25.6

Source: Questionnaire survey

parties (Table II). Inaccuracy of BQ can stem from the omission of important cost items, disparity between drawing details and quantity lists and over- or under-measurement of cost items. Slowness in preparing the BQ risks and delaying the date for calling of tenders would then affect the project completion. Since the preparation of BQ relies very much on architectural and engineering drawings, those involved must establish a good working relationship with the other consultants and personnel from other disciplines.

As for tender estimates, 58.9 per cent of the surveyed population met or surpassed the expectations of the respondents. Selection of the contractor is made by the Tender Board on the basis of the Tender Evaluation Report. A very high proportion (72.2 per cent) of the surveyed QS firm population under-performed when evaluating the tenders. In fact, of all the services that the external consultants render, this task recorded the worst performance. It is just as well that PWD outsources this task least frequently (Table II).

During the preparation of the contract documents, the BQ figures are once again double-checked. It is imperative that the contract document be prepared on time so that the project is not delayed. Of the PWD-engaged QS firms, 57.2 per cent were regarded by the respondents as being under-performers when it comes to preparing contract documents.

PWD-engaged QS firms scored the highest (i.e. 79.4 per cent) in fulfilling or surpassing the expectations of the respondents for site meeting attendance. It is interesting to note that 20.7 per cent were rated "excellent", the highest compared to other performance criteria. The results may not be surprising as other than taking up the consultants' time, attending site meetings is perhaps the least taxing activity performed.

Apart from costs, QS consultants are duty-bound to give contractual advice on matters such as contractors' claims. Of the surveyed QS firms, 52.7 per cent met or surpassed the expectations of the respondents in this regard. Interestingly, seeking contractual advice from

independent QS firms is not regularly done (Table II), in part because not all of them are well versed with the PWD form of construction contracts.

In assessing the cost of variation works, 59.5 per cent of the surveyed population performed below expectation even though it is among the most frequent activity outsourced to them (Table II). Too regularly, they either gave unrealistic figures or disregard PWD format, which then requires intervention by PWD personnel.

Interim certificates have to be prepared promptly so as not to encumber the contractor. Of all the tasks, PWD outsources this task most frequently (Table II). Of the surveyed population, 65.0 per cent met or surpassed the expectations of the respondents for this function.

The surveyed population scored the worst (i.e. 71.5 per cent) for final accounts preparation that sometimes take years to complete. In the worst case, PWD had to redeploy its staff to complete the task. Consultants cannot be blamed entirely for poor performance; late appointments and loss (i.e. transfer, resignation and retirement) of PWD officers sometimes hinder information collection. It is interesting to note that a relatively significant proportion of the surveyed population (i.e. 13.6 per cent) scored “excellent”, but an almost equal proportion (i.e. 12.6 per cent) “failed”. Given that preparing final accounts is one of the most frequently assigned tasks to independent consultants (Table II), their poor performance reflected badly on them.

Of the PWD-engaged QS firms, 73.3 per cent were rated satisfactory or excellent in upholding project confidentiality. Those that contravene can be subjected to legal action as provided by the 1972 Official Secrets Act. The 1967 Quantity Surveying Act outlines the ethical standards for practicing QS that include maintaining confidentiality of sensitive information and documents.

The aggregated results point to much room for the improvement of PWD-engaged QS consultants across all the performance criteria. Several points deserve highlighting. Serious service quality gaps pertain to tender evaluation (72.2 per cent), preparing final accounts

(64.8 per cent), producing BQ (63.8 per cent), costing variation orders (59.5 per cent) and preparing contract documents (57.2 per cent). Construction analysis, production of BQ and settlement of final accounts are the traditional functions of quantity surveyors (RICS, 1982; 1984), so scoring badly for such tasks does not reflect well on their professionalism. While performing better for other technical tasks (these preclude attending site meetings and upholding confidentiality), the margin is not wide enough. Just over half of the surveyed population met or exceeded the expectations of PWD when it comes to giving legal advice on contractors’ claims (52.7 per cent), preparing preliminary estimates and cost plans (57.8 per cent), providing construction cost advice (58.1 per cent), preparing tender estimates (58.9 per cent) and evaluating interim payments (76.0 per cent). Respondents suggested that the effectiveness of the QS consultants in delivering quality service very much rests on the accumulated experience of the personnel, maintaining an effective cost databank that can provide up to date information, deep understanding of PWD procedures and formats and the ability to work well with other consultants such as architects and engineers from whom input is required. Payment of services rendered was also found to have an effect on performance quality.

Remedial response

The assessment exercise generated real figures for the first time that could no longer be ignored, not even for the sake of professional occupational enclosure (Murphy, 1990). PWD’s top management at the Contract and Quantity Surveying division were driven to take corrective steps, remarkable for a large conservative public sector organisation such as PWD possibly afflicted with all sorts of impediments to quality improvements (Madsen, 1995; Prager, 1994; US General Accounting Office, 1997). Necessary resources were diverted to render concrete steps feasible, beginning with the running of a workshop attended by every principal of PWD-engaged QS firms to pinpoint where the major problems lie and how best to tackle them to improve quality performance. Among the points raised were incomplete architectural and engineering

drawings, poor communication, and lack of knowledge about PWD procedures and formats. Some of the terms used by PWD were not well understood by outsiders (e.g. “similar work experience” and “identical work experience”) used for tender evaluation. The workshop was beneficial, in that the weaknesses of PWD were brought to the attention of top decision-makers. The lack of familiarity among some of the PWD’s own staff about its own procedures and circulars is a case in point. As indicated earlier, there must be overlapping motives for the two parties to continue in an outsourcing relationship (Dwyer *et al.*, 1987). For private practices, public work constitutes a significant and reliable source of revenue. Hence their tolerance to PWD’s shortfalls.

Other quality initiatives were followed, including the assignment of a section within the Contract and Quantity Surveying Division to oversee the consultants’ performance and implement programmes to improve their service delivery. Thus far, four courses on PWD procedures and circulars have been conducted, which were well received by independent consultants and PWD’s own staff alike. Complaints management was tightened up so that every complaint from PWD’s project managers, engineers and quantity surveyors about QS consultants is at present dealt with promptly to prevent problems from festering. Essentially to ensure the quality improvement of QS consultants, transformation had to take place inside PWD. All these events have taken place within the last 6 months of writing this paper. Though perhaps premature to make any conclusions, there has been a marked improvement in the service quality of QS consultants if fewer complaints from PWD officers are anything to go by. All these arose from a small exercise that was academic in nature. Though the concrete measures taken thus far have not been extensive, it has to be borne in mind that the quality ethos has only taken root at PWD’s Contract and Quantity Surveying Division within the 6 months preceding the writing this paper.

Conclusion

There is a growing number of academics who feel that a total quality orientation should be

developed by the civil service that procures construction projects for the interest of the public (Holt and Rowe, 2000). As Malaysia’s PWD rely on independent QS firms to cope with work overload, the quality of services offered by QS consultants has a bearing on the delivery of construction projects by PWD to society. By assessing their service performance and implementing the necessary follow-up initiatives, public interest can be further safeguarded. What this case study underscores is that quality assessment exercises do not have to be sophisticated. What matters more is that they are able to motivate decision-makers to make the necessary organisational changes.

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