

The Strategic Responses of Construction Firms to the Asian Financial Crisis in 1997-1998

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ABSTRACT

The Asian financial crisis snowballed in July 1997 following the devaluation of the Thai Baht. This triggered off a chain reaction, which led to similar crises in many countries in Asia, including Singapore. Like many other economic sectors, the construction industry is not spared from the effects of this financial crisis. The findings from the fieldwork conducted in this study reinforced existing management theories that explain the behaviour and strategic responses of construction firms in an economic downturn.

Keywords: Financial crisis, Asia, behaviour of firms, strategies, marketing

INTRODUCTION

The financial crisis in Asia first started in July 1997 in Thailand following the devaluation of the Thai Baht. This crisis soon spilled over to other neighbouring Asian countries, affecting in the process Indonesia and Malaysia and further afield to Hong Kong and South Korea where currencies were devalued drastically overnight. The economic downturn, which followed the financial crisis in Asia has also affected countries in other parts of the world, including Latin America and Europe.

As a small country, Singapore is obviously not spared from the adverse effects of the Asian financial crisis. Although the economic fundamentals put in place by the government over the past three decades are still strong, these do not prevent Singapore from being affected by the economic doldrums in neighbouring Asian countries. While the economic situation in Singapore appears to be under control, the truth is that the regional economic downturn is bound to affect businesses in Singapore, both in the domestic and international arena.

Like other economic sectors in Singapore, the construction industry has also not been spared from the economic crisis. However, unlike other economic sectors such as the manufacturing industry where demand may be undermined almost immediately, this is not usually the case in the construction industry, which enjoys two distinct advantages (Low, 1992). Firstly, the long gestation in building projects means that contracts, which are awarded in 1997, may only be completed two to three years later. The gestation in construction is primarily dependent upon the size and complexity of the building project. The larger and more complex the project, the longer its gestation. This means that the projects won by a contractor in 1997 may actually help to tide the company over the next two or three years. Nevertheless, this scenario assumes that the financial crisis has not affected the liquidity of the developer-owner that can still finance the project through to completion. Secondly, because of the forward and backward linkages, which the construction industry has with other economic sectors, it is often used as a stimulus by the government to pump-prime the economy. This is achieved by bringing forward major infrastructure projects and other public sector building projects. Apart from pump-priming the economy, the Treasury also stands to gain from the lower bid prices for public sector projects as competition becomes more intense among the job-hungry construction firms.

In spite of the two advantages mentioned above, the local construction industry is not entirely immune from the poor economic performance experienced in Singapore as well as other regional economies since July 1997. Construction firms in Singapore will inevitably be affected or have already been affected by the 1997-98 economic downturn so far. However, it is still unclear at this stage how construction firms in Singapore are responding to the financial crisis within their organisations. In view of this lacuna, the objectives of this paper are to:

1. Review existing management theories which explain the behaviour and strategic responses of firms in an economic downturn
2. Examine the measures and strategies adopted by construction firms, which help to tide them over the financial crisis and its associated uncertainties.
3. Determine if the behaviour and strategic response of construction firms to the financial crisis can be explained by current management theories.

The framework is shown in figure 1.

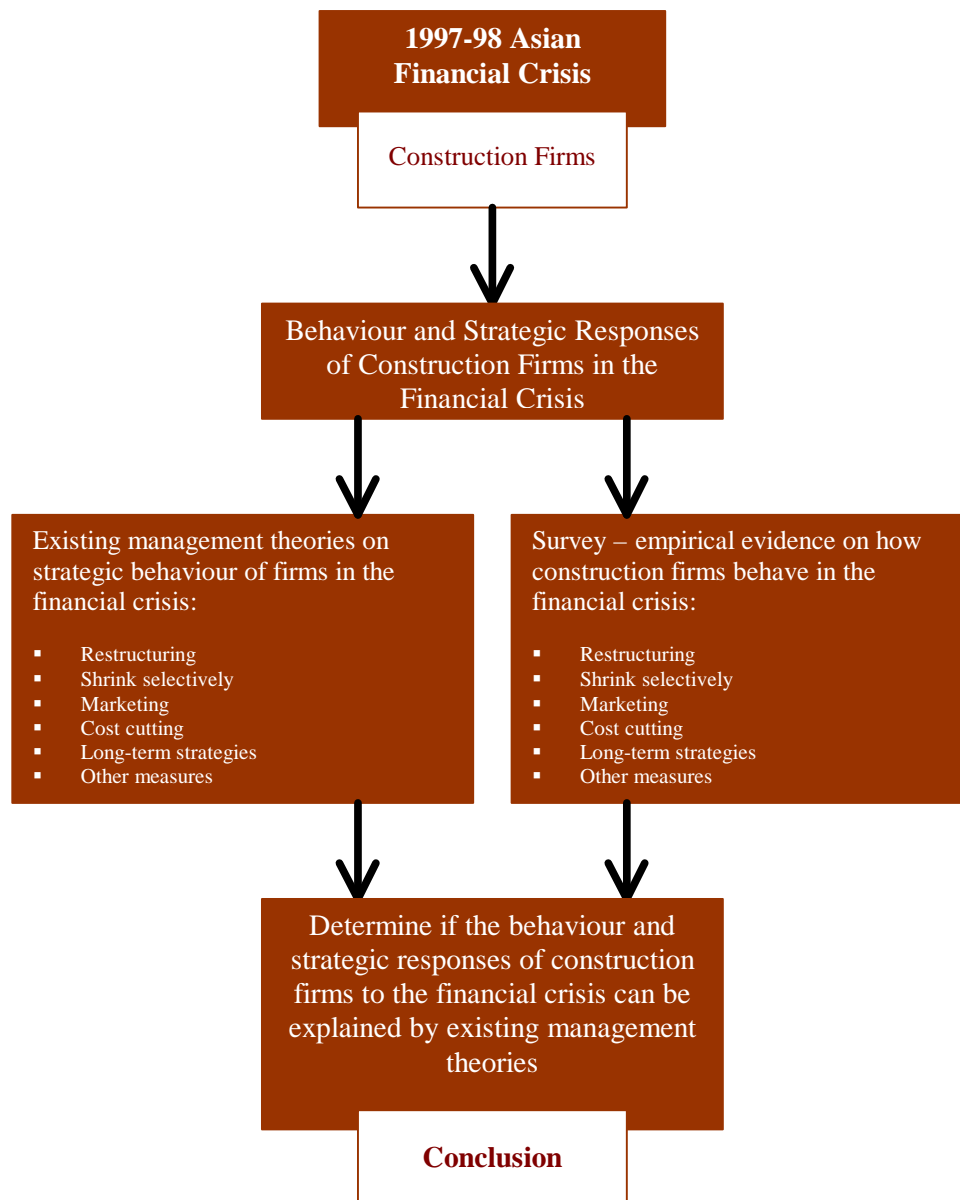


Figure 1. Framework of Study

STRATEGIC BEHAVIOUR OF FIRMS

An economic downturn normally motivates private corporations to undertake unusual steps to protect their assets from continued decline (King, 1997). Strategies should, at least until the crisis is over, generally avoid any fundamental change in character of a business as well as major changes in the business interface with customers which are likely to confuse them (for example, changes in sales personnel and distribution channels – see Prescott, 1982). The following broad strategies should be considered to better understand how behave in an economic downturn:

- Restructuring
- Shrink selectively
- Marketing
- Cost cutting
- Long-term strategies
- Other measures.

These strategic responses to an economic downturn are discussed below.

RESTRUCTURING

Restructuring is the process of transferring production from an expensive site to a cheaper one. It may involve the transfer of activities from a developed to developing country or from high to low wage countries (Cordova and Dror, 1984) as in the case of Japanese firms moving their operations overseas (King, 1997). Townsend (1983) observed that in the 1980's recession in the United Kingdom, virtually all major corporations at some point in time restructured their activities in the face of over-capacity and high costs.

In *process restructuring*, on the other hand, covers marketing, product development, production purchasing, finance and services (Kozminski, 1997). Its main objective is to bring the company to an acceptable minimum level of performance. Production restructuring, for example, leads to improvement in quality, elimination of waste and reduction of the production cycle. Cost improvement can be achieved through out-sourcing and buying directly from the producer. There is evidence to suggest that the larger firms are out-sourcing some of their activities to specialist forms (Tingle, 1994). The selection of local talents, with some background in management and providing them with training, forms part of functional restructuring. Laying off redundant staff and intensive training in functional skills can help to enable successful functional restructuring only if coupled with basic structural design to provide for the elimination of most of the hierarchical layers of the old structure. Staff are encouraged to acquire new skills and to further develop skills and capabilities that they already possessed (Kozminski, 1997). Workers who are affected by technological training should be entitled to full retraining during hours at the employer's expense (Cordova and Dror, 1984).

Down-sizing may occur by reducing workload as well as eliminating functions, hierarchical layers or units and by streamlining activities. Down-sizing has helped companies in Japan and the United States to lower overheads, speed up response time, eliminate red tape/bottlenecks and increase productivity (King, 1997). The shedding of staff associated with restructuring may happen together with redundancies caused by divestment. Consequentially, some form of reorganisation of industrial practices, the introduction of new methods of managerial control and the substitution of labour by more up-to-date equipment may need to be instituted (Danson, 1986). Many companies in the United States are now lean and mean as a result of the restructuring exercise undertaken in the 1980s. Measures such as

huge layoffs, reduced executive travel and lower entertainment budget are, however, less likely to provide room for manoeuvre (Palmer, 1991). The following components should be considered in restructuring:

- Changing top management when passing from one restructuring phase to another (Kozminski, 1997; Whiltington, 1989)
- Adding new people (with new skills) to manage teams filled by individuals outside the organisation, particularly if it has been growing rapidly before the crisis (Kozminski, 1997; Slatter, 1992)
- Constant head-hunting, training and investment in human capital remain the essence of building up managerial competence (Kozminski, 1997)
- Educate management and labour about the new reality brought about by the crisis
- Management attitude must be changed permanently (Shilling, 1988).

SHRINK SELECTIVELY

The principal product-market strategies, which can be employed to re-position a company's business as part of the strategy to shrink selectively, are:

- Focus upon specific product-market segments (Slatter, 1992; Shilling, 1988; Whiltington, 1989; Palmer, 1991; Morine, 1980; Prescott, 1982) which provide a profitable core of higher margin sales (Palmer, 1991; Prescott, 1982) and require least working capital to support them (Prescott, 1982)
- Withdraw from unprofitable market segments (Slatter, 1992; Whiltington, 1989; Palmer, 1991) to a point where the firm is operating from a more secure base of lower volume but higher margin business (Palmer, 1991)
- Sale of investments to get funds with higher rates of return in the principal activities of business (Moline, 1980)
- Contract the business to one entity which will generally lower the level of fixed costs and capital employed (Prescott, 1982)
- Introduce value added (Slatter, 1992) or develop proprietary products (shilling, 1988)
- Shift position in the value-adding chain (Slatter, 1992)
- Cutbacks are sometimes necessary if much of the recently acquired business is low margin business and the firm faces critical cash-flow problems (Palmer, 1991).

MARKETING

An economic downturn, in which there is a decline in consumer spending power, offers opportunities for profitable sales in so far as improved products are concerned (Committee for Economic Development, 1954). Marketing is therefore a more desirable alternative to increase volume instead of cutting profit margins or continually discounting prices (Moline, 1980). Palmer (1991) argued that companies wishing to thrive in an economic downturn should not be cutting back on marketing and product development but should instead increase the budget for marketing activities. In this context, market improvement activities have actually helped firms to survive in post-communist Central and Eastern European countries during their recession (Kozminski, 1997)

As part of its marketing function, the firm will need to keep in constant touch with its existing client base, introduce quick adjustments to its portfolio, and re-focus on client's needs for financing, promotion, quality and design (Palmer, 1991). Attention should also be paid to delivery, time-saving product features, reliable after-sales service and back-up, aesthetic features of the product, a unique, functional and convenient feature of the product (Palmer,

1991; Morine 1980). Marketing policies will need to be redefined in line with customer shifts for more value-adding products/services at lower prices (Slatter, 1992).

COST CUTTING

In most businesses, cost reduction is a faster method to achieve greater profits than increasing sales volume. In addition, cost reduction measures do not usually invoke a response from competitors (Morine, 1980). Cost cutting also helps to tackle a cash-flow crisis within a business (Slatter, 1992). Hence, the adoption of typical cost cutting measures to minimise wastage and unnecessary expenditure constitutes an important survival tactic for a business in a downturn (Low, 1992; Shilling, 1988; Whiltington, 1989). The typical cost cutting measures include the following:

- *Working hours and wages* – to be reduced as well as cuts in bonuses (Chen, 1985).
- *Human resource* – switching from seniority-based promotion and pay system to one based on ability; retrenchment of unproductive employees; compulsory upgrading of skills and knowledge by older workers and so on (Cordova and Dror, 1984).
- *Productivity* – profit sharing creates an incentive for employees to enhance productivity (Shilling, 1988)
- *Bigger orders and lower bids* – rewarding suppliers who meet quality standards with bigger orders help to achieve lower bids (Shilling, 1988)
- *Competitive bidding* – where subcontractors are selected through competitive bidding rather than through negotiation (Palmer, 1991).
- *Time* – management of time to include the handling of paperwork only once, cutting back on report writing, holding fewer meetings to save time (Nueno, 1993).
- *Overheads* – immediate and drastic overhead cost reduction forms part of the turn-around strategy, including turning off unnecessary lights, making telephone calls at off-peak hours, reducing unnecessary travel (Slatter, 1992).
- *Rationalising personnel* – the reduction of employment involves the rationalisation of productive capacity and product lines (Danson, 1986; Townsend, 1983). Only the core personnel are retained and utilised fully to minimise overheads. Additional staff can then be employed on a project basis (Low, 1992).
- *Rely on inexperienced staff* – where young and inexperienced staff are employed to take on a larger scope of work, including that of older employees who have been made redundant (Prescott, 1982).
- *Stock control* – minimise the level of unproductive stocks that are held as this lowers interest charges as well as costs warehousing and materials handling (Prescott, 1982; Palmer, 1991).

LONG-TERM STRATEGIES

A business is only as valuable as its future. All businesses therefore need long-term plans and strategies. The following list of strategies should be considered by all businesses for their long-term planning in an economic downturn:

- *Availability of funds* – cultivate relationships with potential sources of funds, keeping them abreast of the company's performance and plans so that when their resources are needed, there is an on-going understanding of the situation and a willingness to help (Shilling, 1988; Palmer, 1991).
- *Restructuring* – review organisation structure to remove inefficient layers which contribute to unnecessary costs (Chen, 1985).

- *Marketing* – constantly improve marketing methods, so customers are well informed and efficiently served (Whiltington, 1989; Committee for Economic Development, 1954).
- *Improve inventory policy* – businesses should adopt a more stable inventory policy. Speculation on inventories should be avoided. A minimum inventory level needed for efficiency should be maintained (Palmer, 1991; Committee for Economic Development, 1954).
- *Financing* – a long-term plan should include provision for financing that is not entirely dependent on current profits (Committee for Economic Development, 1954).
- *Plant and equipment expenditure* – leasing rather than purchasing assets offers the potential for maintaining flexibility in a business' cash-flow (Moline, 1980).
- *Research and development* – companies in decline should not be discouraged from investments in research and development works (Nueno, 1993).
- *Public listing* – private companies may want to consider going public to tap a wider capital base (Chen, 1985).
- *Diversification* – overseas investments as well as upstream/downstream diversification help to spread risks (Chen, 1985; Whiltington, 1989).

OTHER ACTIONS

Apart from the above strategic options, firms should also consider other aspects of running their businesses both with and outside their organisations. These include the following:

- Maintain rapport with developers and suppliers (Low, 1992)
- Improve employee morale
- Cordial relationships with trade unions (Cordova and Dror, 1984; Townsend, 1983)
- Regain credibility with customers and suppliers (Slatter, 1992)
- Retain staff (Stanford, *et al*, 1993).

RESEARCH METHODOLOGY

A questionnaire survey was conducted between July-August 1998 to understand how construction firms behave and strategize during the financial crisis and to determine if their strategic response can be explained by existing management theories. Construction firms were visited and their senior personnel interviewed to gain an in-depth understanding of how they are responding to the financial crisis. G6 to G8 contractors who are registered with the Construction Industry Development Board (CIDB) under the General Building, Piling and Civil Engineering Heads were targeted for the study, construction firms in Singapore being registered with the CIDB in eight categories from G1 for the smallest to G8 for the largest category. G6, G7 and G8 were included in the study as it was felt that the analysis should reflect the construction industry in general and not be limited by any one particular specialisation. The sampling frame was based on the CIDB Directory of Registered Contractors, 1998 edition. Because some construction firms are listed in more than one category, a conscious effort was made to eliminate duplicate entries in the sample size. The sample includes both local as well as foreign construction firms operating in Singapore. Usable questionnaire from 46 construction firms were collated from the survey and analysed. The results of this analysis are presented in Table 1 and discussed below. The response column in Table 1 indicates the extent to which the respondents have adopted the strategic measures, which were included in the survey.

FINDINGS: RESTRUCTURING

Restructuring appears to be a popular strategy adopted by the responding firms in these times of economic uncertainties. Beginning with the most popular options, the details of how construction firms are restructuring their operations are presented below:

1. **Continuous cuts in supplier costs (91%)** – arising from poor demand, the drop in material prices as well as increased competition seem to enable construction firms to cut supplier costs on a continuous basis.
2. **Direct sourcing from suppliers (78%)** – this forms part of the cost-cutting restructuring process, which saves costs. It appears that contractors are capitalising on lower prices caused by increased competition among suppliers who are clamouring for business.
3. **Quality circles (76%)** – a majority of firms surveyed do encourage individual participation by staff through quality circles. This trend seems to be popular because construction businesses operate on a project basis and contractors recognise the benefits of team efforts.
4. **New methods of managerial control (70%)** – firms introducing new methods of managerial control seem to suggest that they realise the need for more stringent managerial control in order to deal with the currently more competitive and harsh economic climate.
5. **Explain current difficulties to staff (70%)** – many firms find it necessary to explain the current difficulties caused by the economic slowdown to staff in anticipation of harder times ahead. However, 30% of the respondents do not do so, which suggests such firms expect their staff to deduce the difficulties faced, based upon perceptions gathered from adverse press reports about the economy.
6. **Eliminate old hierarchical layers (39%)** – most of the respondents (61%) claimed that there is no elimination of the old hierarchical layers. This is either because there are no redundant layers or the typical family-run construction business does not allow such a measure to be taken. Alternatively, these construction firms may not have taken any restructuring actions yet.
7. **New staff in management team (35%)** – respondents have employed new staff who are mostly project managers. The other 65% already have adequate management staff in the company. Hence, the currency crisis seems to have little influence on a firm to employ new staff in its management team.
8. **Increase in use of domestic subcontractors (24%)** – the currency crisis caused only 24% of the respondents to subcontract their work to specialist firms. This suggests that firms generally do not favour this strategy. It appears they do not think that this is an effective restructuring measure that can contribute to their well-being and are comfortable with the existing level of subcontracting.
9. **Change top management (13%)** – construction firms in Singapore are frequently family-run businesses where top management comprises close family members. Consequently, it seems that the currency crisis has not in any way influenced them to bring “outsiders” in to replace top management.

FINDINGS: SHRINK SELECTIVELY

It is also possible for construction firms to scale down their operations to concentrate on selected businesses during this crisis. The two possible modes for scaling down operations are discussed below:

1. **Concentrate on proprietary or value-added products (39%)** – This mode requires firms to scale down peripheral operations to concentrate only upon profitable proprietary or value-added products and services. However, it appears most home-grown construction firms in Singapore do not own proprietary rights to value-added products or services, which are profitable enough for them to scale down other activities.
2. **Consolidate all businesses into one entity (17%)** – most responding firms have no intention to consolidate their business into one entity as part a cost-saving, restructuring

process. The reason could be that many of these firms are already operating only as one entity before the crisis set in. This is particularly true for smaller G6 construction firms.

FINDINGS: MARKETING

Construction firms may also intensify their marketing activities to publicise their services to potential clients as well as to establish better rapport with existing clients in order to secure repeat contracts. The three marketing modes that were adopted for the survey and their respective responses are discussed below:

1. **Speed up in project delivery (65%)** – most of the respondents indicated that they are speeding up the delivery of their projects in order to provide a better service to their clients. This action is necessary in view of intense competition for jobs in the construction market.
2. **Faster rectification works (59%)** – most of the responding firms are also speeding up the rectification of defective work. This helps to provide a better service to their clients.
3. **New financing arrangements with clients (22%)** – because of the currency crisis and its associated options which are limited, most responding firms do not have new financing arrangements with their clients such as joint ventures or deferred payment schemes. In addition, it is possible that construction firms are also facing tight cash-flow problems themselves in the financial crisis.

FINDINGS: COST-CUTTING MEASURES

Eighteen possible cost-cutting measures, which can be adopted by construction firms, were identified from the literature review and tested in the survey. They are discussed below, beginning with the most popular cost-cutting measures taken by the respondents:

1. **Competitive bidding for subcontracting works (76%)** – this appears to be the most popular cost-cutting measure adopted. Its popularity suggests that construction firms are seizing opportunity to obtain lower bid prices through competitive tendering rather than to seek the services of familiar subcontractors through negotiation. This appears to be in line with the drop across the board in tender prices for public sector building projects as well as monthly price indices.
2. **Freeze salaries (65%)** – it should be pointed out that this measure is applicable not only in the construction industry but also to other industries during an economic downturn. This measure helps to keep the firm's overheads from increasing in an uncertain economic climate and at the same time, also help to maintain employees' standard of living. The impact on employees may not be devastating if the freeze does not affect their ability to service their existing loan commitments.
3. **Train staff to look for ways to cut costs (65%)** – this is an equally popular measure among the responding firms. Employees who are trained to look for ways where costs can be further cut will benefit these firms directly.
4. **Cut bonuses (63%)** – the amount of bonus an employee gets is commensurate with the firm's performance. Because many construction firms will inevitably be affected by the currency turmoil, bonuses may be cut to approximately reflect market sentiments and the firm's performance.
5. **Employ staff on a project basis (61%)** – as most existing employees are already assigned to specific projects, additional manpower needs can be met by employing staff on a project basis when the need arises, thereby helping to save costs. The responding firms stated that keeping staff can be expensive at times.

6. **Cut overtime (59%)** – a majority of respondents suggested that this measure is applicable for skilled tradesman such as bricklayers and plasterers as they are paid 1.5 times their normal wages for overtime work. The responding firms claimed that they can no longer afford to pay for overtime and that they will try to minimise overtime work. This is, however, not applicable for professional like project managers and quantity surveyors who are not paid overtime work. They are instead expected to work more overtime as firms become short-handed when new staff are not employed.
7. **Keep only core personnel (52%)** – This was apparently practised even before the crisis. In the present economic crisis, less new staff and fresh graduates are recruited to avoid having to retrench them later when the firm fails to perform.
8. **Just-in-time (JIT) purchasing, inventory control, production, distribution and delivery (48%)** – only 48% of the respondents practised JIT management in this crisis. Nevertheless, they have already practised JIT management prior to the crisis. The remaining respondents realised the need to practise JIT management in order to improve their cash-flow, particularly when procuring materials.
9. **Internal transfer (41%)** – this does not seem to be a popular measure because employees in existing projects have already familiarised themselves with their work. The responding firms felt that it is unwise to reshuffle them. Most of the respondents who adopted this measure, however, did so because their projects have just ended and there is a need to gainfully employ their employees on other projects.
10. **Reward suppliers who meet quality standards with larger orders at lower bids (37%)** – suppliers in this case refer to suppliers of labour or materials. Respondents who chose this measure did so because they value quality works provided by suppliers who are certified to ISO 9000 standards. 63% of the respondents, who did adopt this measure, probably did so because they were more concerned with getting the lowest bids.
11. **Introduce fringe benefits based on productivity and profitability (35%)** – a majority of the responding firms do not utilise this measure as they are already affected adversely by the currency turmoil. 35% of the respondents who introduced fringe benefits did so because they are still doing well despite the crisis. Staff were rewarded in this case with project bonuses.
12. **Switch from seniority to ability-based criteria for pay and promotion (35%)** – a majority of the respondents did not adopt this cost-cutting measure. It appears that the construction industry is still conservative in so far as this practice is concerned and firms are concerned that their senior staff may be demoralised in the process.
13. **Reduce research and development expenditure (28%)** – this measure is not popular because many of the responding firms do not undertake research and development activities in the first place.
14. **Dispose assets for cash (28%)** – very few responding firms chose this option as one of the cost-cutting measures for two reasons. Firstly, they felt that the present business conditions have yet to deteriorate to an extent where they need to dispose off their assets for cash. Secondly, even if they wanted to, there is no market for them to sell their plant and equipment. For example, one responding firm who specialises in land reclamation works felt that its equipment is too specialist for there to be a market.
15. **Reduce wages (26%)** – most of the responding firms are not in such a bad shape as to resort to reducing wages yet although they do not exclude this possibility in the future if the economic downturn deteriorates further. Some of the responding firms were lucky enough to have secured a few new projects at the beginning of 1997 prior to the onset of the regional currency crisis in July 1997. They are cautious of this measure as it can affect the morale of their employees when personal loans cannot be serviced. The alternative option for freezing salaries seems to be more appealing.
16. **Less meetings to save time (13%)** – very few responding firms chose to implement this measure. Instead, most of them felt that meetings are essential to save costs and time. This is because discussions can help to prevent more problems from occurring on site. Some respondents even felt that more meetings are needed.

17. **Retrench middle-aged employees (13%)** – most of the responding firms do not retrench their middle-aged employees and have no intention of doing so in the future. This is because the management of construction projects requires a wealth of experience that is only possessed by these middle-aged employees. Nevertheless, when interviewed, the director of one G7 construction firm revealed that the firm has intentions to retrench a few of its middle-aged employees. However, the same director reasoned that these employees have failed to perform to expectations and are not solely as part of its cost-cutting measures. One other possible reason why this measure is unpopular could be that the respondents in this study are mostly middle-aged themselves and may therefore be reluctant to reveal their companies' policies, which directly affect their age group during the interview.
18. **Rely on cheaper but inexperienced recruits (4%)** – the management of construction projects requires experience in contract administration as well as management. It may be penny-wise but pound foolish to employ someone who, although cheaper, is less experienced in construction management. This seems to be the reason why this measure is unpopular.

FINDINGS: LONG-TERM STRATEGIES

In addition to the above measures, construction firms are also thinking of other long-term strategies to help them tide over the financial crisis as well as to take the opportunity to consolidate their operations where possible. The long-term strategies adopted by construction firms are discussed below:

1. **Good relationships with sources of funds (91%)** – a majority of the responding firms do cultivate good relationships with potential sources of funds, especially with banks, in order to maintain a healthy level of liquidity and cash-flow.
2. **Restructuring (80%)** – a majority of the responding firms indicated that this is a popular strategy taken at the middle and lower management level. Restructuring is not normally carried out at top management level because it is often the immediate family members who are holding the key management positions in a traditional, family-run construction business.
3. **Marketing (78%)** – it is important to improve marketing to make sure that clients are well informed and efficiently served. A majority of the responding firms felt that clients are very important for their livelihood. As such, keeping in constant touch with them is therefore critical for future businesses.
4. **Avoid speculation on inventories (70%)** – the fact that cash-flow is important in a construction business and contractors are generally known to be risk-takers may help to explain why 30% of the responding firms chose to speculate on inventories. The majority of firms avoid speculation. They may have felt that the cost of liquidated damages is too much to entice them into speculating on inventories.
5. **Long-term financing (57%)** – slightly more than half of the responding firms have long-term financing plans that include the preparation for maintenance and modernisation operations when current level of production declines. The reason could be that these firms may already have the financial resources and a steady foothold on their construction businesses to do so. On the other hand, the remaining respondents may not have a steady foothold in the construction labour market and are just not prepared for this economic downturn.
6. **Turn to leasing equipment (57%)** – more than half of the responding firms are prepared for times when bank financing becomes difficult. They chose to lease equipment instead of depending on bank loans. The remaining respondents have not thought of ways to hedge against the economic downturn. It seems that the latter may have been too busy during the boom times to formulate long-term strategies.

7. **Research and development activities (40%)** – most responding firms do not invest in research and development activities. These are mainly home-grown businesses operating in the local construction industry which does not place any premium on research and development. On the other hand, foreign construction firms (particularly the Japanese) have carried out research and development works back in their own countries. Their inclusion in this study probably accounts for the 40% survey findings presented here.
8. **Public listing (39%)** – this strategy does not seem to be very popular. Some respondents are not ambitious and are happy with their present status quo because most of them are family-run businesses where “outsiders” are not welcomed.
9. **Diversification (39%)** – most of the respondent firms felt that they are already bogged down by their existing workload. Hence, 61% of the respondents do not intend to diversify. 39% of the respondents, however, have such an intention because they do not wish to place all their eggs in one basket. They hope to expand their business portfolio and spread their risks.

FINDINGS: OTHER ACTIONS

Apart from the above measures, construction firms may also adopt other measures to tide them over the economic downturn. These measures are discussed below:

1. **Rapport with developers and suppliers (89%)** – it appears that the responding firms are working hard to maintain good rapport and credibility with developers and suppliers. They seem to recognise that their survival and future business depends on them.
2. **Improving morale (76%)** – improving staff morale is one of the priorities in most of the responding firms. This is because poor staff morale can adversely affect productivity and hence the successful completion of building projects.
3. **Influence of trade unions (2%)** – 2% of the responding firms claimed that their decisions are influenced by trade unions. The tripartite relationship between employees, employers and unions in Singapore, which is essentially harmonious and non-confrontational in nature, helps to explain why a majority of the responding firms are not influenced by trade unions in their deliberations on how best to tide over the economic downturn.

CONCLUSION

This paper reviews existing management theories, which explain the behaviour and strategic responses of firms in an economic downturn. It also examines the strategic measures adopted by construction firms, which help to tide them over the financial crisis. The fieldwork conducted suggests that the behaviour and strategic responses of construction firms to the financial crisis can be explained by existing management theories.

The restructuring measures taken by a majority of the construction firms who responded to the survey are: continuous cuts in supplier costs; direct sourcing from suppliers; encourage individual participation through quality circles; introduce new methods of managerial control; and explain current difficulties faced to employees. A majority of the respondents are also taking up marketing options by speeding up project delivery and rectification works. The more popular cost-cutting measures include: more competitive bidding for subcontracting works; freezing salaries; training staff to look for ways to cut costs; cutting bonuses; employing staff on a project basis; cutting overtime work; and keeping only the core personnel. More than 50% of the respondents are also adopting the following long-term strategies: establishing good relationships with sources of funds; restructuring; marketing; avoiding speculation on inventories; long-term financing; and turning to leasing equipment.

Many respondents are also trying to establish a better rapport with developers and suppliers as well as improve staff morale to enhance productivity.

The above survey from this study must, however, be examined individually for all construction firms. This is because the outlook of a firm's core area of business will differ from one core area to another and from one sector to another (Low, 1992a; Penrose 1995). The core area of a firm may be centred on institutional works, industrial works, commercial works, civil engineering works and residential works. Each core area can, in turn, be in the public or private sector. It appears that construction firms are more likely to maintain or increase investments when the outlook of their core business is positive and when they perceive that there will be little or no difficulty in selling their assets when needed.

This study only covers the strategic measures adopted by construction firms who are affected by the currency crisis, which first snowballed in July 1997 following the volatile fluctuations in several Asian currencies. The measures presented in this paper should therefore be read within the context of the past one year from 1997-98. No one, however, knows for sure when this regional economic turmoil will end or will indeed degenerate further into a global crisis. The strategies adopted or to be adopted by construction firms in the future will obviously depend on how long the crisis is going to last. The reformulation of strategic measures is therefore to be expected but were not analysed in this paper. Nonetheless, despite this limitation, it is hoped that the analysis will be able to provide a framework for understanding how construction firms strategize and in the process. Also provide valuable strategic lessons for other construction firms to help tide them over the Asian financial crisis.

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