

# The Malaysian Surveyor

THE PROFESSIONAL JOURNAL OF ROYAL INSTITUTION OF SURVEYORS MALAYSIA

## Exclusive Interview With Sr Teo Chee Hai President of FIG

(International Federation of Surveyors)

### Peer Review

Competitive Strategy In  
Quantity Surveying Firms  
- Weigh Your Options

### Property Management

The Origin of Property  
Management



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**"Ubiquitous Geospatial Solution"**

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## EDITORIAL

This issue features another exclusive interview with a senior member of RISM who has taken up leadership role in an international surveying organisation. Sr Teo Chee Hai, Past President of RISM (1999-2000), is currently the President of International Federation of Surveyors (FIG) for the 2011-2014 term. RISM is proud that Past Presidents of the Royal Institution have moved on to provide surveying leadership from national to the international and global level.

Under the Property Watch section, a write up on the origin of property management has been offered. It traces the origin of property management to the feudal system in UK and how modern property management has evolved over time after the industrial revolution. The article provides an understanding on how the property management industry is linked to the evolution of the surveying profession. It also demonstrates the linkages between real estate qualifications offered by the local institutions of higher learning and the development of the property management profession in Malaysia.

Another article that relates to property management is on the role of strategic aspects of facilities management from the planning and management perspectives.

There are three articles in this quarterly issue that relates to quantity surveying. The first discussed the competitive strategy that can be adopted by quantity surveying firms; the second article is on how to avoid costly claims and disputes in the construction industry. The third is a book review on a construction law textbook.

The regular columns on managing stress and management discuss the effects of procrastination on stress and how to use social media to enhance personal branding. Last but not least an article on carbon footprint in the student column.

Assoc. Prof. Sr Dr Ting Kien Hwa

**Editor**

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Please adhere to all guidelines on how to prepare a manuscript for submission to The Malaysian Surveyor. Exceptions to these instructions are noted below. The peer-review process is applied to all submissions.

**ORIGINAL RESEARCH**

**Original** articles are scientific reports of the results of original research. The text is limited to 3000 words, with an abstract, a maximum of 5 tables and figures (total), and up to 15 references.

**Special** articles are scientific reports of original research in other areas such as economic policy, ethics, law, and health that are related to surveyors in general. The text is limited to 3000 words, with an abstract, a maximum of 5 tables and figures (total), and up to 15 references.

**REVIEW ARTICLES**

All **Review** articles undergo the same peer-review and editorial process as original research reports. They should be written for the surveyors and not too academically inclined.

Consequently, they may include material that might be considered too introductory for the academia in the field being covered. The text is limited to 2000 words, with an abstract, a maximum of 5 tables and figures (total), and up to 5 references.

**SHORT COMMUNICATIONS**

**Short Communication** articles are intended for brief reports of current interest in GLS, PVCS, BS and QS. The text is limited to less than 1000 words and deal with significant findings worthy of urgent publication.

**ESSAYS**

**Essays** are usually invited by the Editor. This type of articles are usually a short, literary, nonfiction composition (usually prose) in which the writer develops a theme or expresses an idea. Those who submit unsolicited reviews and essays should consult with the Editor in advance.

**LETTERS**

**Letters to the Editor** provide a forum for readers to comment

about articles recently published in the Journal. The text is limited to 300 words (subject to editing and abridgment).

**BOOK REVIEWS**

**Book Reviews** are generally solicited. We are willing to consider proposals for book reviews, but please contact the Editor before submitting a review. The text is limited to 1000 words.

**GENERAL INSTRUCTIONS**

All text, references, figure legends, and tables should be in one double-spaced electronic document (Word Doc or PDF). Abstract should not be more than 200 words. The abstract must briefly describe, respectively, the problem being addressed in the study, how the study was performed, the salient results, and what the authors conclude from the results. The Harvard system is used for citing references. Examples:

Rahim, S. and Hassan, K. (2007). *Issues and Challenges Faced by*

*Surveyors, The Malaysian Surveyor, Issue 42.2, pp 85-88.*

*Google Earth and its Consequences to Land Surveyors.* (Accessed September 14, 2007, at <http://www.utm.my/centepis/google.htm>)

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Participants at The Young Achievers' Award (YAA)

# Young Achievers' Award

## Report for Session 2011 - 2012

**T**HE YOUNG ACHIEVERS' AWARD (YAA) NATIONAL FINAL WAS SUCCESSFULLY HOSTED at Hotel Singgahsana, Petaling Jaya on the 21 April 2012 and it was officiated by the RISM President, Sr Ahmad Fauzi Nordin.

### COMMITTEE MEMBERS

<b>Chair</b>	Sr Fadilah Mohamad Camaludin
<b>Treasurer</b>	Sr Mohamad Shazali Sulaiman
<b>Committee Members</b>	Sr Chuan Tinng Tinng
	Sr Dr Adi Irfan Che Ani/Assoc. Prof. Sr Dr Syahrul Nizam Kamaruzzaman
	Sr Mokhtar Azizi Mohd Din

### OBJECTIVES

The Objective of the Young Achievers' Award:

- Create awareness of the surveying profession
- Demonstrate how the four surveying divisions interact within the property development process
- Promote interest in science and technology in general and the science of measurement in particular
- Help develop the student's ability to reason given real economic scenario and to formulate strategies within a time limit
- During the course of this session, the committee held its meeting on 28 March 2012

## PARTICIPATING SCHOOLS

Sixteen (16) schools participated and they were:

**(a) East Cost Branch**

- Sekolah Menengah Islam Aman Kelantan
- Sekolah Menengah Kebangsaan Zainab (1)
- Sekolah Menengah Kebangsaan Agama Lati

**(b) Northern Branch**

- Sekolah Menengah Jenis Kebangsaan Chung Ling, Pulau Pinang
- Penang Chinese Girls High School
- Penang Free School

**(c) Johore Branch**

- Sekolah Menengah Kebangsaan Perempuan Sultan Ibrahim
- Sekolah Menengah Kebangsaan Sultan Ismail
- Sekolah Menengah Tun Fatimahs

**(d) Central Branch**

- Sekolah Menengah Jenis Kebangsaan Katholik
- Sekolah Menengah Kebangsaan Convent Bukit Nanas
- Sekolah Menengah Kebangsaan Meru
- Sekolah Menengah Vokasional Sepang
- Sekolah Menengah Kebangsaan Damansara
- Sekolah Menengah Subang Utama
- Sekolah Menengah Kebangsaan Tun Razak
- Unfortunately, Sabah & Sarawak Branch wrote in apologising, they were unable to participate due to their tight schedule.

## WELCOMING EVENTS

The students were welcomed by the YAA Committee and a briefing was given by representatives from all the four divisions on Friday evening, 20 April 2012. On the same night, a BBQ dinner was hosted at the Taman Layu, Hotel Singgahsana which they thoroughly enjoyed.



Champion, SMK Sultan Ismail, Johor



1st runner up, SMJK Chung Ling, Pulau Pinang



2nd runner up Sekolah Menengah Kebangsaan (P) Sultan Ibrahim, Johor



Briefing by Sr Fadilah Mohamad Camaludin, Chair of YAA Committee 2012

## PRIZES

- (1) Champion was SMK Sultan Ismail, Johor receiving RM3,000.00 in cash, winning plaques, trophy and YAA Challenge Trophy
- (2) 1st runner up was SMJK Chung Ling, Pulau Pinang receiving RM2,000.00 in cash, winning plaques and trophy
- (3) 2nd runner up was Sekolah Menengah Kebangsaan (P) Sultan Ibrahim, Johor receiving RM1,000.00 in cash, winning plaques and trophy

## ACKNOWLEDGEMENT

The Chairperson and the Organising Committee wish to express their gratitude to the following for their continuous support:

Judges	Division
Assoc. Prof. Sr Syahrul Nizam Kamaruzzaman	Building Surveying
Sr Nik Afinde Nik Yaakub	Geomatic & Land Surveying
Sr Dr Tunku Fauzi Dato' Tunku Abdul Malek	Property Management, Valuation & Estate Agency Surveying
Sr Yusof Hassim	Quantity Surveying

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10. Metropolis Property Consultants Sdn Bhd
11. Syarikat Loh Kam Lak
12. Sr Previndran Singhe □

# RISM

## Treasure Hunt 2012



**T**HE RISM TREASURE HUNT 2012 WAS successfully held on 28 - 29 April 2012. The event was flagged off by RISM's President, Sr Ahmad Fauzi Nordin at the Institut Penilaian Negara (INSPEN - 1), Bangi, Selangor and ended at Pulai Spring Resort, Kulai, Johor. A total of 22 cars participated in the event which amongst others included member firms, the RISM secretariat staff, the President and Council members.

The champion for RISM Treasure Hunt 2012 was Celcom 1 with a total team score of 120 points followed by the first runner up, Celcom 2 (117 points) and second runner up, CPK Associates 1 (111 points).





RISM Activities



The price giving ceremony was graced by the President which was held during dinner at the same place.

The Chairman and Organising Committee wish to take this opportunity to thank RISM JB Branch Committee members namely, Sr Farid Naim, Sr Mahayuddin Makmin and Sr Yong See Lai for their effort in attending the dinner.

Lastly, *syabas* to all for making it an enjoyable and successful event! ▀



# RISM Sports Carnival 2012



THE CARNIVAL WAS successfully held on 2 June 2012 at Institut Penilaian Negara (INSPEN 2) Sport Centre, Bangi. Three hundred and forty-eight RISM's members and families participated in this event.

The following games were contested:

1. Futsal
2. Badminton
3. Ping Pong
4. Volleyball
5. Sprints
6. Dart
7. Carom
8. Extradiction
9. Fellow Big Walk
10. Telematches



The results are as follows:

Event	Champion
Futsal	INSPEN
Badminton (Male Single)	Mohd Hazim Jamaruddin (INSPEN)
Badminton (Male Double)	Adam Ngu Abdullah (JUPEM) Ahmed Zamani Maarof (JUPEM)
Badminton (Mix Double)	Mohd Hazim Jamaruddin (INSPEN) Asmanee Zainal (INSPEN)
Ping pong (Male Single)	Abd. Aziz
Ping Pong (Male Double)	Sr Ahmad Fauzi (JUPEM) Sr Azua Md. Zin (JUPEM)
Volleyball (Male)	JUPEM
Volleyball (Female)	ARH Consultant
Sprints (Male 100m)	Ahmad Munir (INSPEN)
Sprints (Female 100m)	Tg. Affie Rania (RISM)
Sprints (Male 200m)	Mohd Zabidi (JUPEM)
Sprints (Female 200m)	Dewi Ardiela (UTM Jln Semarak)
Sprints (Male 4 x 100m Relay )	JUPEM 2 – Noraldi Mohd Zabidi M. Shaiful Khairul Azlan
Sprints (Female 4 x 100m Relay )	Siti Aishah Che Rani Mastura Ariffin Juwita Mohd Haslinda Shafie
Dart (Male Single)	Zakir Husain Hassan
Dart (Female Single)	Harijah Yeop Mohd Nasir
Dart (Mix Double)	Harijah Yeop Mohd Nasir Jamaludin Isa
Carrom (Open)	Muhammad Haikal Zahari (JUPEM)
Extradiction (Open)	Saddamia Raudah Haron
Fellow Bigwalk	YM Sr Dr. Tunku Fauzi Dato'Tunku A.

Appreciation was rendered to RISM President, Sr Ahmad Fauzi Nordin, Sr Dr. Mohd Yunus, JUPEM's and INSPEN's respective staff for assistance in making this carnival a success.

Free T-Shirts were given to all who assisted and participated in the games.

Free flow of ice cream was also provided for the duration of the carnival in addition to the breakfast and lunch which was provided to all present. □



# An Interview With **Sr Teo Chee Hai**

President of the International Federation of Surveyors (FIG)

## Brief Background of Sr Teo

Sr Teo was elected President of the International Federation of Surveyors at its Congress and General Assembly in April 2010 as a nominee of Persatuan Juruukur Tanah Bertaualiah Malaysia (PEJUTA), the FIG's sole Member Association from Malaysia. He remains a Licensed/Chartered Surveyor in the private practice in Malaysia. Sr.Teo completed his undergraduate programme in surveying in Australia in 1980, and a Masters programme in Malaysia in 2004. He is a Past Secretary-General of the ASEAN Federation of Land Surveying and Geomatics, a Past President of the Royal Institution of Surveyors Malaysia, Past Chair of Royal Institution of Chartered Surveyor - Malaysia as well as having held a number of positions in the Association of Authorised Land Surveyors Malaysia over the past 20 years. He has had a number of ministerial appointments in Malaysia including to the Land Surveyors Board (2003 – 2009) and the Second National Economic Consultative Council (1999/2000).

Apart from being the President of the International Federation of Surveyors, he is also a member of the Global Land Tools Network (UN-Habitat) International Advisory Board.



## As we are in an era where we no longer have the resources and luxury to reinvent the wheel, as you have put it, we must be looking to collaborate, cooperate and contribute!

**Q: Sr Teo Chee Hai, we fellow surveyors in Malaysia are proud of you for being the first Asian President of FIG and as you are standing tall amongst all of us on the world stage. It is now almost 18 months since you formally took office. Can you please tell us your experience as President of FIG so far compared to your past experience as President of RISM (formerly known as ISM)?**

It is a privilege to be able to serve the profession on the global stage and the difference you are referring to, as President of RISM back in 1999/2000, I was addressing primarily national issues and engaging individual members. In FIG, one needs to engage and address global challenges and consider how the profession and FIG can contribute. FIG is exciting in that it is an international federation representing the profession where the membership comprises organisations and whose membership are drawn from professionals who are practising, either privately or in public institutions and agencies, who are from the scientific, academic and research communities and who are technological innovators and providers.

**Q: What are your main aspirations for the FIG?**

That we as a profession, armed with knowledge and best practices and together with our science and technologies, extend the usefulness of surveying for the benefit of society, environment and economy, becoming increasing positioned in significance and relevance, next door to everywhere.

**Q: The FIG is a worldwide professional organisation. What do you see as the mission of the FIG?**

The Mission of the Federation, as is clearly stated in the preamble of our Statutes, is to ensure that the disciplines of surveying and all

who practise them are relevant and meeting the needs of the society, the environment and the economy.

**Q: What have been achieved in the past one and half year since taking over office and what do you intend to achieve for the remaining term?**

I think it is still early to talk about achievements. As a profession and Federation, we are continuing in our collective resolve, with our sciences and technologies, our knowledge and practices, to engage and contribute to initiatives that addresses challenges of our times, such as adequate food and shelter, access to land and water, poverty, climate change, disaster management as well as environmental degradation, rapid urbanisation and sustainable national and economic development. This professional contribution in turn enhances the standing, role and significance of the profession, wherever we are.

**Q: Do you need more time to achieve what needs to be accomplished for the Surveying profession worldwide?**

A four-year term is a long tenure but then again, one can argue whether one ever has enough time to deliver. However, I have a four-year fix term, a four-year work plan, with resolve, hard work and broad support from associates, colleagues friends and family, God-willing and with His grace, will complete my tenure as successfully as it can be.

**Q: FIG has been in existence for the past 134 years! It saddens me that RISM is not a member of FIG. RISM had just celebrated its Golden Jubilee and should be growing in prominence. Do you think we in RISM should have closer co-operation with FIG to keep pace with what is happening to the Surveying profession worldwide rather than to reinvent the wheel which can be time consuming and expensive?**

RISM was a member of FIG since the sixties, if memory serves, until about ten years ago, and I remain convinced that it was short sightedness then that resulted in RISM's withdrawal from FIG. As RISM seeks to advance the interest of its membership and increases its prominence, RISM must keep pace with professional developments elsewhere including globally but there is always a price and a resource issue involve. I must also add that there are a number of significant developments over the past nine months within the international arena that has a significant impact on our profession, the natural and built environment professionals that are involved in land (and the seas), construction and properties. As we are in an

era where we no longer have the resources and luxury to reinvent the wheel, as you have put it, we must be looking to collaborate, cooperate and contribute! I suppose the present leadership of RISM would need to wrestle with its international positioning and profile. I am ready to contribute where appropriate!

**Q: The world is rapidly changing in terms of telecommunications and computer technology. What are the impacts of the advancement of telecommunications and computer technology on the geomatics professionals? In what directions do you think the geomatics profession should be heading?**

Not just the geomatics professionals. As what I term the natural and built environment professionals, the land surveyors, the hydrographic surveyors, the spatial scientists, the building surveyors, the quantity surveyors, the construction economist and managers, the valuers, the property managers and consultants, we are experiencing a newer generation of internet, mobile services and apps, such as online maps and location based services and applications, that are stimulating a greater interest and use of location in society today. These advances are being increasingly deployed, for example, to locate a point of interest such as a restaurant, to ensure emergency services arrive at incidents in time, to ensure that services are better targeted to citizens needs and to empower citizens and communities to manage their communities and administer their spaces and resources more effectively. This location revolution as we are experiencing in our personal lives is being mirrored in our professional lives. It is clear that our profession must progress beyond mere data collectors, into the realm of

**A four-year term is a long tenure but then again, one can argue whether one ever has enough time to deliver.**

services and applications, in particular with location or spatial aspects, becoming knowledge managers, deploying solutions that address the challenges and needs of the times.

**Q: As you have had an illustrious career as a Surveyor in Malaysia and you have contributed immensely both nationally and internationally, you are an excellent role model for young Surveyors in Malaysia. What is your advice to these young Surveyors?**

At the recent RICS-RISM-PEJUTA Surveying Undergraduate Conference, I urged the participants to be ready to be part of the solution humanity expects from any professionals and this will require the young Surveyors of today to go beyond their present comfort levels, to be inclusive and innovative where change is the norm, to be ready to step out, step up and make difference where it matters, to have an impact where it matters most for the future of humanity, to contribute base on, as Franklin D Roosevelt put it, "honesty, on honour, on the sacredness of obligations, on faithful protection and on unselfish performance."

Thank you for your time and interest. □





Text of the President of the International Federation of Surveyors Address at the

# Opening Ceremony of the 2012 Working Week and Conference

We are in a rapidly changing environment and good governance of our land and the seas, our natural and built environment, its resources and assets remain paramount. We are witnessing a new generation of web and mobile services, such as online maps and location based services that are stimulating an increasing interest and use of our sciences and technologies in society today.

Information, with both geographic and temporal context, is increasingly being used to find, say a restaurant, to ensure emergency services arrive at incidents in time, to support the formulation of policies, for evidence based decisions, to ensure that services are better targeted to citizens needs as well as to empower citizens and communities to manage their communities and administer their spaces more effectively.

With global initiatives on managing all information spatially, on voluntary guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forest, on spatially enabling governments and societies, towards greater transparency and good governance, towards whole-of-government effectiveness and efficiencies in citizen-centric delivery systems, the usefulness of surveying (its science, its technologies, its practices) in addressing the developmental and economical challenges of the times is recognised. Our profession and our Federation are at a historic moment.

The profession is now firmly in the continuum paradigm. We embraced the Continuum of Land Rights, we know we must adopt a continuum of approaches, a continuum of technologies and

technological sophistication, a continuum of accuracies. We understand that we have to progress beyond securing tenure rights for all into land valuation and taxation, land development and construction and the land market. We need to move into the next Paradigm where we are inclusive and innovative, where we will be required to embrace Open Standards; Interoperability (of systems, institutional and legislation); culture of collaboration and sharing; avoidance of duplication; incorporation of volunteered information; developing enabling platforms and delivering knowledge from information and data from different scales, purposes and origins.

There need to be structural changes in the institutional, legislative and professional domains.

The surveyor today and tomorrow, whether we are working on land or in the seas, into construction or properties and real estate, we must be in the business of providing solutions with our data, information and knowledge. Our profession is a real world people centric profession, ours is a creative and constructive profession. And we must continue to be so.

During these times, it is important that we are engaging in idea generation, conceptualisation and constructive development, engaging in the creative processes that inspire the young, that which is innovative, that generates new approaches and opportunities, including that which has never before existed. We must devise fit-for-purpose, affordable, appropriate and applicable approaches as we seek to be part of the solution the world expects from our Profession in addressing the challenges humanity faces today. □

# Competitive Strategy In Quantity Surveying Firms

## Weigh Your Options

Nur Azila Adros<sup>1</sup>, Nazirah Zainul Abidin<sup>2</sup>, Lim Yoke Mui<sup>3</sup>

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The competitive pressure in the construction industry requires its players, including quantity surveyors, to be more resilient and “competitive-able” to withstand the stiff market challenges. Applying an effective strategy is vital to safeguard the interest of the firms to remain relevant in the industry. But, how do we choose the most suitable strategy for the firms? The firm size could influence the choice of competitive strategy adopted in a firm, however, it also depends on the priority of the firm. Whether they want to stay visible in the market or to climb a higher hierarchy in the market, it is imperative for quantity surveyors’ firms to ensure that the strategy they use to compete is tailor-made for their own satisfaction.

### Introduction

THE PRESSURE TO CATER FOR MANY FACETS IN the industry has resulted in higher expectation or demand for better and diversifying services tied up with more advanced or technologically-challenged products. Significantly, this demand forces the Quantity Surveying (QS) firms to continuously improve their services to remain active in the market. Nowadays, QS firms can no longer limit their services to basic or traditional services but should expand their scope to match the clients' and industry's demand. The increment in the number of new companies entering the market on yearly basis also necessitates effective competitive strategy. QS firms must adapt effective strategies, seek improvements in every area of the business, building awareness and able to understand potential strategies to win the competitive battle. Competitive strategy is defined as “strategic intent,” having a winning business model, and having “the plan” the “answer” that is uniquely “right” for organisation (Chauduri, 2006). The firm size could influence the choice of competitive strategy adopted in a firm, however, it also depends on the priority of

the firm. The selection of an appropriate strategy is also influenced by the strengths and weaknesses of each firm as compared with its competitors. It is imperative for the firms to understand their business approach, the strategy they adopted, the success of that strategy and the requirement to change strategy when necessity ensues, especially to stay relevant in the industry in the long run.

## The Need to Compete

QS is the one who ensures that the resources of the construction industry are utilised to the best advantage by providing, inter alia, the financial management for projects and cost consultancy services to the client and designer during the whole construction process. In past years, when competition is not an issue, QS can survive in the industry without the need for the 'right-strategy'. As the number of firms continue to grow, this way of thinking is no longer feasible. In this dynamic industry, QS firms need to look for project opportunity instead of waiting for project to come to them. There are some well-established QS firms that lead the construction industry by having good reputation, stability and is favourable among the clients, while others prefer to stay in the comfort zone with the same type of projects. There are perpetually some new entries that are struggling to find their comfort zone and may face pitfalls while some are already in their comfort zone but dare to improve their position in the industry. With the increasing demanding clients, QS firms must outperform the other to be the "chosen one." In an intense competition, they must realise that their services, regardless of how good they are, simply do not sell automatically as they can no longer wait for clients to come by (Pheng and Ming, 1997). To establish their firm in sustainable position, a proper understanding is needed to evaluate their style of competing, recognise their strengths and weaknesses and identify their competitor's strength to move forward. QS should enhance their professionalism and status in order to maintain their competitive advantage (Davies et al., 2005). QS should adapt to changes in work patterns, develop new markets and

cultivate superior advantages over their competitors in order to maintain his competitive position and ultimately his profit making. Armed with the right strategy is the key ingredient for a long-term success of QS firm. Strategies are long-range plans, methods, and approaches that a company adopts in order to reach its goals in a competitive environment (Warszawski, 1996). A clear strategy will direct the QS firms to identify their potential competitor's capacity and competitive stance.

## Ways to Compete

There are many ways of competing and most can be rationalised into one of the three generic strategies as suggested by Porter (1985). Porter's competitive strategies have been found suitable for use in construction industry and later in QS firms (Jennings and Betts, 1996). These competitive strategies consist of Cost Leadership, Differentiation and Focus strategy. The adoption of these competitive strategies is a way for them to compete effectively to strive for success in formidable challenges and stood out from their rivals in the highly competitive environment. A cost leadership strategy is most effective in predictable and stable environments, since environments that are unpredictable or subject to much change will create severe

diseconomies for organisations trying to pursue a cost leadership strategy. The company that seeks leadership in cost has to focus the entire organisation to achieve this objective, creating a culture of low costs, working constantly to reduce waste and remaining constantly attentive to the cost positions of its competitors (Shimizu et al., 2006). Differentiation on the basis of these key buying criteria (quality, innovation, schedule, and cost) enables a construction firm to offer products/services that are valuable to clients and allows the firm to create an island of non-competition around itself. Differentiation to a QS firm on the other hand is how they portray and differentiate themselves to client by diversifying service offered to client such as with the existence of marketing, innovation and others more. Focus strategy is more towards the brand loyalty concept between the clients and QS firm and this strategy is mostly gained by long-term relations with the client (Dikmen and Birgonul, 2003). Besides the three generic strategies, there is other generic strategy, which is Growth strategy that has not been considered explicitly. Definition for growth strategies on QS firm is the firm's capabilities to expand their firm not only locally but also internationally. There are several reasons for firms to expand their business into new

**Table 1: Interpretation of Competitive Strategies in QS Firms**

Types of strategies	Interpretation in QS firms
Cost leadership	Lower fees than other QS firms; Sustain capital investment and access to capital; Training of personnel; Geographical area; Specialise in work; Optimise staff/salary levels; Technological Advance
Differentiation	Identify client's requirement and maintain good relationship; Branding; Innovations; Marketing
Focus	Develop specialist information system; Employ specialist staff; Develop expertise in area; Market to specific client type; Standardise specialist procedures; Focusing on certain types of projects
Growthstrategies	Entry into new locations or regions (internalisation); Entry into new types of construction projects; Engaging in new businesses

**QS firms can no longer limit their services to basic or traditional services but should expand their scope to match the clients' and industry's demand.**

markets, such as stagnant existing markets, booming of new markets, and competitive use of resources (Langford and Male, 2001). Under each strategy, the relevant strategic behaviours of QS firms are presented in Table 1.

## Weigh Your Choice

The major concern for every QS firm to strive for success is on how to compete by choosing the best strategy. The strategy chosen will underpin every other strategic decision that will be made, so it is worth spending time to get it right. Does selection of your strategy depends on your firm size? There were some conflicting opinions among the scholars about the relationship between firm size and the suitability of certain strategy. However, recent studies (Bishop and Megicks, 2002; Siskina et al., 2009) generally agreed that firm size actually can influence their competitive options because of some basic differences in the behaviours and characteristics between small, medium and large firms. The small size firms consist of less than six quantity surveyors. Medium size firms would have between 6 to 20 quantity surveyors, while large firms should consists of more than 20 quantity surveyors (Jennings and Betts, 1996). The co-existence of small, medium and large firms in an industry may be attributable, in part, to their different strategic positions in the market. The appropriate strategies for small firms are likely to be influenced by the existing strategic orientation of larger competitors and the market environment. A thorough understanding of the strategic positions of large competitors is of considerable value to the formulation of effective strategies for the small firm. Whilst strategies based on differentiation and the development of market niches are often appropriate for small firms, in markets where large firms are adopting high quality strategies a low price option may be viable. Firm size should be regarded as one important factor influencing strategy but there are many industry-specific factors that may also have an important influence.

Each type of the generic competitive strategies appeals to be different and may have different impact to QS firms. Cost Leadership strategy requires a detailed internal focus on processes. Small firms may adopt Cost Leadership strategy to concentrate their efforts on a small, faithful group of clients which this size of practice typically has and whom they retain by providing a good service and encouraging personal relation. Small or medium size QS firms can choose Cost Leadership strategy when the environment is particularly competitive and the projects are fairly uniform. QS firms may also choose this strategy

**QS firms must adapt effective strategies, seek improvements in every area of the business, building awareness and able to understand potential strategies to win the competitive battle.**

when they need to develop a competitive edge in some resources such as training of personnel, technological advance etc. if they want to offer more efficient and less expensive performance. QS firms who have superior training of personnel who works towards maximum adopt this strategy will conceivably result in reduced costs. Utilisation of advanced technologies leads to savings for labour. Firms who wanted to reduce their fees will discard unnecessary overheads.

A small size or a boutique QS firm should opt for focus strategy. It concentrates on specific market, if they prefer to focus upon particular market niches rather than compete across a broad market. Focus strategy may be more realistic for small firms as they require limited commitment of resources, and entry barriers to small market segments may be relatively low. Such strategies may also conform to the objectives of many small firm managers, which are typically more concerned with short-term survival and maintenance of independence than growth. Small size firms basically have better knowledge of their client's particular needs and preferences and this is one of the reasons why they only cater their faithful clients. This attracts the clients' interests to maintain long-term business relationships with the QS and retain exclusive services from them. Small firms usually have few numbers of staff who is potentially well trained and have skilled staff. They undertake simple projects of a fixed type to which they became adept, and this specific project type competence plus 'optimised staff/salary levels' and discarding unnecessary overheads' achieves lower costs (Jennings and Betts, 1996). Small firms may have a competitive advantage in operating in specific market segments as a consequence of their streamlined decision-making processes, which enable them to respond more flexibly and rapidly to the needs of individual consumers and market conditions.

Differentiation strategy demands an outward-facing, highly creative approach towards the services that being offered. Large firms have more resources and competencies to differentiate themselves from their competitors. They can adopt Differentiation strategy instead of Cost Leadership to secure their revenue and profit growth. Larger firms usually have longer history and recognisable name. They compete by using their image, reputation and experience to strengthen their position in industry. Other than that, stronger financial resources indicate the firm's credibility and capability to get involved with more challenging situations with higher potential of great return. They can become creative in business to offer new types of services and market them to attract

**Differentiation on the basis of these key buying criteria (quality, innovation, schedule, and cost) enables a construction firm to offer products/services that are valuable to clients and allows the firm to create an island of non-competition around itself.**

## **Differentiation strategy is workable to QS practitioners that dare to make changes in industry by using ideas that are unique and 'out of the box' to establish their firm in foreseeable future.**

more clients and outperform their rivals. The firms that apply Differentiation strategy must have staff that are both technically and socially competent and are able to use detailed information systems if they are to maximise the success of their chosen strategy. Differentiation strategy is workable to QS practitioners that dare to make changes in industry by using ideas that are unique and 'out of the box' to establish their firm in foreseeable future.

Growth strategy will enable firms to expand their firm locally or internationally. Thus, it is suitable for any size of firms who consider expanding their current market into new location or region. As service provider, QS firms can offer their services outside their home country to export and internationalise their services. There are two types of venturing into different market; offering services to other countries (go international) or offering services into different field (other than building construction). In first case, the QS firms expand their market into other country, who are most likely already have their own local QS firms who can offer the same services at a much cheaper rate. The competition exists in the form of existing local firms who are well verse in their culture and ways of business.

How do you compete with them? QS Firms entering new territory must find ways to offer services that are unique to the client, show that we are aware and respect of their policy, limitations and culture and most importantly, showcase our capability, experience and resources to attract their attention on the services that we can offer. In another word, the QS firms must stand out from other competitors. In second case, QS can also extend their services into different market, i.e. other than construction industry. Previously, QS firms have involved in industry such as oil and gas industry and banking sector.

In order for QS firm to stay on track, it is crucial for them to assess their strengths and weaknesses and their firm's resources to achieve their targeted goals. QS practitioners need to weigh what type of competitive strategy suits them best as a 'passport' for them to success and avoid trouble juggling in maintaining their position year in and year out from the fierce competition.

### **Conclusion**

Global competition and technological change, combined with multi-disciplinary supply chain, dynamic nature of market, limited resources and demanding customers have put more pressure to the construction industry and its players to be more competitive-able to withstand the stiff market challenge. As one of the industry player, QS are not excluded in this market game and must continuously outperform others, if they not at par, to stay relevant in the industry. There are four competitive strategies that can be applied in QS firms but to decide on the best option, one must understand their working environment, aware of their strengths and weaknesses and utilise the available resources to the best of their ability. Choosing strategy that can provide maximum advantage which best-suited the firms interest and agenda is crucial as it allows the firm to maintain its existence and prosper at its own pace and comfortably. □

### **References**

- Bishop, P. and Megicks, P. (2002). Competitive strategy and firm size in the estate agency industry. *Journal of Small Business and Enterprise Development*. Vol. 9 (2), pp.150 -161.
- Chaudhuri, S. K. (2006). *Case Studies On Competitive Strategies*. Vol I, ICFI Books.
- Davies, T., Gilbert, B. and Swartz, J. (2005). *Competitive response: a new lens for evaluating company performance*. The Practical Real-Time Enterprise. Springer.
- Dikmen, I. and Birgonul, M.T. (2003). Strategic Perspective of Turkish Construction Companies. *ASCE Journal of Management in Engineering*. Vol.19 (1), pp.33-40.
- Jennings, J. M. and Betts, M. (1996). Competitive Strategy for Quantity Surveying Practices: The Importance of Information Technology. *Engineering, Construction and Architectural Management*. Vol. 3 (3), pp.163 – 186.
- Langford, D. & Male, S. (2001). *Strategic Management in Construction*. 2nd ed. Oxford: Blackwell Science.
- Pheng, L. S. and Ming, K. H. (1997). Formulating a Strategic Marketing Mix for Quantity Surveyors. *Marketing Intelligence & Planning*. Vol. 15 (6), pp.273 – 280.
- Porter, M. E. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance*. Free Press, New York.
- Shimizu, T., Carvalho, M., M. Laurindo, F. J. B. (2006). *Strategic Alignment Process and Decision Support Systems: Theory and Case Studies*. Hershey: Idea Group.
- Šiškina, A., Juodis, A., Apanaviciene, R. (2009). Evaluation of The Competitiveness Valuation of The Competitiveness of Construction Company Overhead Costs. *Journal of Civil Engineering and Management*, 2009, 15(2): 215–224.
- Warszawski, A. (1996). Strategic Planning in Construction Companies. *Journal of Construction Engineering and Management*. Volume 122 (2), pp. 133-140



# How To Avoid Costly Claims And Disputes

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Claims by contractors are often seen as a contributing factor to project budgets being exceeded. The majority of such claims centre on claims arising from delays suffered by contractors. It may be a common perception that claims arise from claim-conscious contractors. However, it would not be a surprise that the majority of such claims originate from root causes which are within the control of the Employer and its consultants and thus can be avoided. Where claims cannot be avoided and that disputes are imminent, arbitration is often employed to resolve such disputes but not without a heavy price tag.

**I**N THESE CIRCUMSTANCES, COSTLY ARBITRATIONS can be avoided if both parties to the disputes are willing to seek and be guided by the opinion/decision of an independent claims expert as an alternative to arbitration. Such opinion/decision may shed light on the parties' true liability or entitlement in respect of the claims so as to resolve the disputes in an efficient and economical manner without resorting to arbitration.

## Claims and avoidance thereof

Construction projects are often plagued by cost overruns one of the contributing factors of which is contractors' variation and delay claims. Though this may be true, one might go further to ask 'what cause has given rise to such claims in the first place?' In the sight of employers who are at the receiving end, they might say it is the contractors who are claim conscious. From the perspective of contractors who submit the claims, they might say the claim arose through no fault of theirs. Be that as it may, if one were to scrutinise the claims, the majority of them arose from variations to the works and delays caused to the works albeit some of the claims might have arisen from the contractors' own default. Common causes of contractors' claims are as follows:

- i) Variations
- ii) Delays arising from obstruction by employers' other direct contractors

It would not be a surprise that the causes of claims comprising variations and delays are within the control of the employers and their consultants and thus measures can be implemented to prevent and/or minimise the claims. These causes and measures are elaborated below.

### i) Variations

Variation claims arises when changes to the scope of works are instructed and that fall within the ambit of the definition of variation. These variation claims are usually

**... it is advisable that an employer's consultants advise the employer on the cost and time implications of instructing a change to the contractor's method and sequence of works before any decision is made to issue the instruction.**

**Embarking in a preliminary study of the cost and time implications goes a long way towards avoiding any unnecessary variation claims from the contractor.**

straightforward matters and are not disputed. However, what is often overlooked is that the definition of variation may also include instructions to alter a contractor's method and sequence of working as found in Clause 11 of PAM 98 and PAM 2006 contract. The contractor's obligations in respect of the schedule for completion under the contract are usually confined to commencing on and completing by certain dates specified in the contract. How the contractor plans to complete the works is not usually specified in the contract. Therefore, it is often the contractor's prerogative to adopt its own method and sequence of construction so long as they are reasonable for the purpose of achieving completion by the specified date. An instruction to alter the method or sequence of the works may cause the contractor a loss of productivity and subsequent delay and costs thus giving rise to claims for additional time and costs.

In this respect, it is advisable that an employer's consultants advise the employer on the cost and time implications of instructing a change to the contractor's method and sequence of works before any decision is made to issue the instruction. Embarking in a preliminary study of the cost and time implications goes a long way towards avoiding any unnecessary variation claims from the contractor.

### ii) Delay arising from obstruction by employers' other direct contractors

Delay claims arise when there are delay events which have caused the contractor to suffer delay to the progress of the works and incur additional loss and expense. Even if the completion date under the contract has not lapsed yet, if a delay occurs at the outset of the project that has critically delayed the progress of the works and that the cause of the delay falls within the grounds for extension of time and loss and expense under the contract, then the contractor may be entitled to an extension of time and loss and expense.

A common delay event arises from obstruction by employers' other direct contractors. Such obstruction is usually caused by lack of coordination between the main contractor and the employer's other direct contractors, particularly, in projects where both the substructure contractor and superstructure contractor are sharing the

**... it is advisable that the employer engages a project management consultant or an in-house project manager to coordinate the works of the various contractors.**

same site. In this circumstance, it is advisable that the employer engages a project management consultant or an in-house project manager to coordinate the works of the various contractors. With the involvement of a full time project manager on the site, coordination of works can be streamlined.

### **Disputes and avoidance thereof**

Where claims cannot be avoided and have to be submitted to the employer's consultants for assessment, these claims might trigger a defensive mode on the part of the employer and its consultants. In the large majority of projects, the employer might dispute the contractor's entitlement to such claims. As a result, the employer might be entrenched in its position on the belief that the contractor is not entitled to such claims. The employer's position might have been based on the advice of its consultants who might view the claims from their own perspective. Conversely, the contractor might also be entrenched in its own position believing that it is rightfully entitled to the claims. Where each party would not budge from its respective position, the dispute might escalate into an arbitration which is provided for in most construction contracts.

In arbitration, not only do the parties have to pay for the fees of their solicitors or representatives to represent them in arbitration, but also pay for the fees of the arbitrator(s) as well as other miscellaneous arbitration costs. Accordingly, arbitration can be a costly dispute resolution method.

Be that as it may, costly arbitration can be avoided where both parties agree to refer the dispute to an independent expert who possesses expertise in claims. The parties will share the fees of the expert which is relatively low as compared to the cost of a full blown arbitration.

The expert can take up a role in the following manner:

- i) Giving an independent opinion
- ii) Giving a binding decision in Expert Determination

### **Giving an independent opinion**

The expert in claims can be engaged by the parties to study the dispute and give an independent opinion on the parties' contractual position in respect of the contractor's entitlement to claims and the employer's liability to those claims. In other words, the expert's

opinion may reflect the likely decision of an arbitral tribunal had the dispute been referred to the tribunal. Although the expert's opinion is not binding on the parties, such opinion serves to assist the parties to make an informed decision when negotiating for a settlement. If negotiation breaks down, then the parties might refer the dispute to arbitration. Nevertheless, the expert's opinion offers the parties an opportunity to reach a settlement that might avoid costly arbitration.

#### **Giving a binding decision in Expert Determination**

The expert in claims can also be engaged by the parties to study the dispute and give a decision on the parties' contractual position in respect of the contractor's entitlement to claims and the employer's liability to those claims. In other words, the parties agree that the expert's decision will be binding upon them. This process is known as Expert Determination and will be agreed by the parties to replace arbitration as an alternative dispute resolution. It should be pointed out that Expert Determination is only suitable where the dispute matter consists of contractor's claims of which the expert possesses the expertise.

### **Conclusion**

Contractor's variations claims and delay claims can be avoided through pro-active measures where root causes of the claims are within the control of the Employer and its consultants. Where claims cannot be avoided and disputes are imminent, such disputes can be resolved through other means of dispute resolution the costs of which are lower than those of arbitrations. Those means include expert's opinion that facilitates commercial negotiation or expert's decision in Expert Determination that replaces arbitration. □

**With the involvement of a full time project manager on the site, coordination of works can be streamlined.**



# The Significance of Strategic Planning and Management in Facilities Management

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This paper presents the significance of strategies for facilities management (FM) to strengthen and improve the effectiveness and efficiencies of FM organisations to come up with good business decisions and to be innovative towards achieving the organisations' business goals. Our review is based on previous research studies that contribute towards the improvements of FM strategies. FM is a multidisciplinary field that had been broadly applied and increasingly popular in United Kingdom, United States and other developed countries. It aims to achieve an organisation's core business, improve quality of products and services as well as increasing the FM performance. Good FM performance contributes to customer satisfaction, work productivity, stability of business environment, increasing profit margin and to meet the strategy needs. In this paper, we are focusing on the importance of strategies in FM and the techniques that were previously used in developing FM strategies. Innovation and business environment will be discussed as part of the contribution towards developing strategies for FM.

## 1. INTRODUCTION

FACILITIES MANAGEMENT (FM) has broad functions and lately have encompassed many other industries such as real estate, human resource, health and safety management, building and engineering (Atkin and Brooks, 2005). FM is able to manage the facility resources, support services, working environment, provides quality services and value for money for short- and long-term basis (Chotipanich, 2004). On the other hand, Alexander (2003) had mentioned that FM contributes to the organisational effectiveness that leads to a good business decisions towards continuous improvement. It is also collaborated within the user satisfaction and services such as space, environment, information technology, support services and infrastructure in order to upgrade and improve the organisation's core business to gain success (Alexander, 1996). Nutt (2000) had defined that FM is "to provide appropriate and logistic support to business and this is to sustain the organisation's core business, operations, group, individual, project team, suppliers and customers." Prior to this, FM is known as a multidisciplinary field that contributes to every level of an organisation. Table 1 shows various definitions of FM that emphasise the decision making process, continuous improvement and management actions that lead to increased profit margins of an organisation and also to achieve the objectives of its core business.

Definitions in Table 1 show the integration of scope of FM that supports the core business to achieve competitive advantages by improving the paradigm of FM organisations. FM not only covers technical aspects such as operations and maintenance but also other non-technical aspects that contribute to the success of the built environment (Ong, 2009). Moreover, the main components such as people, place, process and technology that have been derived by IFMA need to be emphasised in upgrading the FM productivity that

**Table 1: FM definitions**

Author / Organisation	FM definitions
Chotipanich (2004)	The support function coordinating physical resources and workplace, and support services to user and process of work to support the core business of the organisation.
Pitt and Tucker (2008)	The integration and alignment of the non-core services, including those relating to premises required to operate and maintain a business to fully support the core objectives.
Noor and Pitt (2009)	Creating an environment that is cohesive to carry out an organisation's primary operations, taking and integrated view of the infrastructure services and use it to give customer satisfaction and value for money through support for an enhancement of the core business.
RICS (2009)	A discipline that improves and support the productivity of an organisation by delivering all needed appropriate services, infrastructures, etc. that are needed to achieve business objectives.
Kamaruzaman and Zawawi (2010)	A balance between technical, managerial and business acumen that may be related to operational, tactical and strategic decision making process.
IFMA (2010)	Facility management is a profession that encompasses multiple disciplines to ensure functionality of the built environment by integrating people, place, process and technology.
BIFM (2010)	Facilities management is the integration of process within an organisation to maintain and develop the agreed services which support and improve the effectiveness of its primary activities.

*Source: Noor and Pitt, 2009*

contributes to continuous improvement. Prior to this, FM organisations need to look into costs, quality and innovation that can give impact to FM industry globally (Moore and Finch, 2004).

## 2. FACILITIES MANAGEMENT IN MALAYSIA: AN OVERVIEW

A survey by Moore and Finch (2004) mentioned that FM is establishing well in South East Asia (SEA) countries such as Hong Kong and Singapore followed by Malaysia, where there is evidence of progress in the FM industry. The study was based on restricted sample range and it has been emphasised that further research and investigation towards the findings need to be done in order to enlighten the FM industry (Moore and Finch 2004). To identify the FM growth in SEA, Moore and Finch (2004), had

focused on important factors such as general factors and regional factors. General factors consist of globalisation, information technology, high cost of space, employee expectations and cost of mistakes. Meanwhile, regional factors consist of regional economy, property market, market maturity, procurement system and general business environment. The majority of the respondents are from Hong Kong, Singapore and Malaysia. Prior to this, it is shown that, FM in Malaysia is in the infancy level.

Pillay (2002) had briefly discussed the history of FM in Malaysia. FM in Malaysia started in the 1990's with the support from the government sector. Earlier, it is known that FM has less collaboration with the real estate, architecture, and construction profession but now FM has a new level of thinking and collaborates with all these fields in order to strengthen the efficiencies

## ...FM contributes to the organisational effectiveness that leads to a good business decisions towards continuous improvement.

of organisation that focuses on people and processes (Kamaruzaman and Marinie 2010). In addition, in the 1990's, FM was recognised as outsourcing organisation till today and it is implemented in government buildings whereby FM is the "one-stop centre" that will focus on service level and customer requirement respectively (CIDB, 2010).

The Prime Minister of Malaysia (2001) adapted from (Kamaruzaman and Marinie 2010) had emphasised that, "unless Malaysian change their mentality to become more aware of the need to provide good services and improve upkeep of buildings, we will forever be a Third World country with First World Infrastructure." This statement mainly focused on the asset and to create awareness on FM towards providing quality facilities, services, and best practices. The current situation of FM in Malaysia can be said to be at an infancy stage with less knowledge in practicing it broadly and lacking recognition on the industry (Noor and Pitt, 2009). Thus, FM in Malaysia needs to be upgraded and to focus on the skills and knowledge to maintain the identity and image of FM industry. Therefore, the importance of strategies for FM to be practised in every FM organisations.

### **3. WHAT IS STRATEGY?**

The significant of strategy is to create a systematic organisation that lead to continuous improvement and as well as to achieve its objectives for a longer term. Pugh (2011) mentioned that strategy is a way of thinking to monitor the strength and weakness in order to have the ongoing growth of

achievement of business. Pugh (2011) also highlighted that strategy is about learning, discovering and inventing that supports the organisations best practice towards competitive advantage. Meanwhile, Johnson and Scholes (1999) define strategy as the "direction and scope of an organisation over the long term which achieves advantage for organisation through its configuration of resources within challenging environment, to meet the needs of mark and to fulfil expectations."

Strategy is needed to come up with good decision making, upgrade the best practices which will influence the quality, time and cost. It is also a way that helps managers to come up with good business decisions for the long term basis and as well as managing activities and best practices that contributes to the organisations and business performances (Adcroft et al., 2008). Thus, strategy and operational effectiveness is towards superior performance that can contribute to the achievement of primary goals whereby it is based on customers' needs, accessibility and the variety of products and services and

strategy can be said as about being different and choosing to perform activities which is the basic units of competitive advantage (Porter, 2008). Besides, strategy is the management's core in order to understand the significance of organisation's positions to achieve the goals, mission and vision globally (Porter, 2008).

### **4. TECHNIQUES USED IN DEVELOPING STRATEGIES FOR FACILITIES MANAGEMENT**

FM is an important profession which is not only focusing on the economic capabilities, but also shares its importance towards social and environment benefits (Alexander et al., 2006). Focusing FM at strategic level is basically on the excellence of leadership that drives towards strategic path and at the same time effective learning and innovation will help to add value to the FM organisation (Alexander, 2003). Furthermore, Alexander (2003) highlighted that FM need to be seen in an extensive manner and revise the strategies to develop new process that contributes to community, purpose and environment. According to Atkin and Brooks (2005), developing strategies for FM plays an important role in contributing to organisations business objectives and needs. There are three stages that need to be focused on in developing FM strategies which comprise of analysis stage, solution stage and implementation stage as shown in Table 2.

**Table 2: The Stages in Developing FM Strategies**

Stages	Actions
Analysis stage	Relevant facts including the organisation's objectives, need and policies, a review of resources, process, system and the physical assets together with the attributes in terms of space, function and utilisation.
Solution stage	The criteria for judging options, evaluating these against the objectives of the organisation, and develops the facilities management strategy.
Implementation stage	Completes the strategy development process through the establishment of an implementation plan that incorporates the key elements of procurement, training and communication.

*Source: Atkin and Brooks, 2005*

Table 3 shows the stages involve in developing FM strategies that will be very much relevant for the organisations strategic and operation plans that contribute to organisations' core business. Atkin and Brooks (2005) had introduced a framework (Table 3) on the process of developing FM strategies in order to have a better understanding on the current situation and the approach between core business and FM. Nutt (2000) highlighted that developing strategies for FM comprise of four competing trails comprising business, people, process and technology that act as a support business that contributes directly to productivity and human effectiveness that lead to continuous improvement, success and opportunities.

Strategies play an important role in every organisation whereby this will influence the profit margin, customer satisfaction as well as the recognition of FM organisation. In addition, this will provide good delivery on quality, cost and time that meet the customers' requirements as well as to increase the customers' expectations towards products and services (Alexander, 2003). Alexander (2003), mentioned that "strategic planners need to predict future business conditions in order to make the appropriate decisions about the balance facilities needed, the way in which to organise their operation and management and the best way of providing them."

Prior to this, FM organisations need to improve the quality of FM by producing good business strategies and increase the professionalism in this field towards innovation and business environment that lead to the success of its core business. According to Timm (2011), FM managers play an important role to develop strategies that contribute to business productivity by understanding the business, structuring the operations by new way of thinking and to support the customers' needs in order to

**Table 3: Techniques and Tools to Support Development of FM Strategy**

Development stage	Phase	Technique or Tool
Strategic Analysis	Services audit/review	<ul style="list-style-type: none"> <li>• Benchmarking</li> <li>• SWOT analysis</li> </ul>
	Assessment of expectations and objectives	<ul style="list-style-type: none"> <li>• Space analysis, Maintenance plan, risk audit</li> </ul>
	Portfolio audit	<ul style="list-style-type: none"> <li>• People/skills audit</li> <li>• Service provider audit</li> <li>Service providers (external)</li> <li>• Supply of real estate etc</li> </ul>
Developing Solutions	Resource Audit	
	Market Audit	
	Generations of options	<ul style="list-style-type: none"> <li>• Outsource modelling</li> <li>• BPR</li> <li>• Maintenance plan</li> <li>• Risk analysis</li> <li>• Cost benefit analysis</li> <li>• Optimising model</li> </ul>
Strategic implementations	Evaluation of options	
	Selection of strategy	
	People and systems	<ul style="list-style-type: none"> <li>• Change management through the application of rigorous project management (plan, monitor and control)</li> <li>• Training and development</li> <li>• BPR</li> </ul>

Source: Atkin and Brooks, 2005

**direction and scope of an organisation over the long term which achieves advantage for organisation through its configuration of resources within challenging environment, to meet the needs of mark and to fulfil expectations.**

achieve corporate objectives. Table 4 shows several literatures and research that contribute in developing FM strategies.

## 5. THE SIGNIFICANCE OF INNOVATION IN DEVELOPING FM STRATEGIES

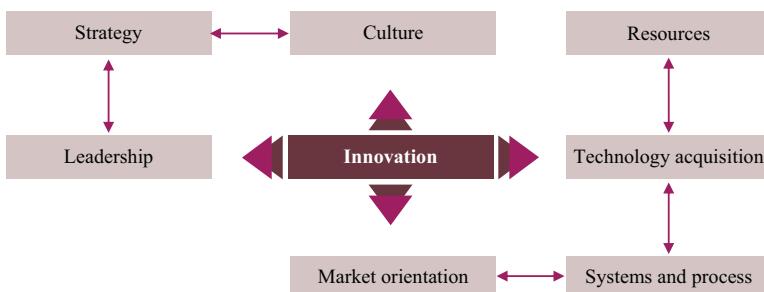
Innovation is said to be a degree of intervention which can be radical or a transformation (Mudrak et al., 2004). It is becoming increasingly popular and it is impossible for innovation to stand by itself whereby systematic management tools, skills and most importantly critical thinking is needed in the innovation process (Hackett, 2009). Innovation process needs to be focused on the understanding how customers perceive the organisation's business and it is important to understand the customers' requirement and needs in developing the innovation in an organisation (Kumar, 2009). Goyal and Pitt (2007) highlighted that innovation is the changes towards new management thinking and marketing strategies in an organisation. Innovation is an important element nowadays that contributes to create the organisations' strategies that will lead to competitive advantage and continuous improvement of an organisation. Figure 3 is the framework introduced by Dyle and Brigewater (1988).

Goyal and Pitt (2007) emphasised that FM involvement need to be adapted in the innovation management to produce good business decisions. It is shown that there are scopes for innovation in FM whereby FM is not only about reducing the cost or maintenance work whereas it is also focused beyond the operational level. Goyal and Pitt (2007) had also highlighted that good FM need to have the flow in the changes involve in organisation as well as focusing on people and process towards strategic level. Besides, innovations need to be given more awareness on new skills and new ways of communication with client, customers and staff (Price and

**Table 4: Selected studies on FM strategies**

Author	Year	Topic/ Contributions
Nutt, B.	1993	Topic: The Strategic Brief Contributions: The Total Briefing Cycle, contributes to productivity, decision making, greater adaptability, manageable and support the management.
Barret, P.	2000	Topic: Achieving Strategic FM Through Strong Relationship Contributions: Generic FM Model, contributes to knowledge and skills for FM managers to think and act strategically.
Featherstone, P. and Baldry, D.	2000	Topic: Public Sector FM Strategy Contributions: Strategic Characteristic of the UK public sector organisations. To control the formation of facilities management strategies within the market sector.
Alexander, K.	2003	Topic: A strategy for FM Contributions: Collaborative strategy involves in developing business, systems and people.
King, B.	2006	Topic: Why do you need to strategise the FM role Contributions: leadership role that contributes to support organisational goals and corporate culture that maximise company's overall performance.
IFMA	2009	Topic: Strategic facility planning, A white paper Contributions: Strategic Facility Planning (SFP), Strategic Layout Planning (SLP) contributes to be more proactive delivery of services from FM organisation to stakeholders.
Timm, R.	2011	Topic: Facilities Management – Earning the right to drive strategy Contributions: Re-positioning of brand, whereby the FM managers need to demonstrate their strategic importance to achieve the corporate recognition.
Chotipanich, S.	2011	Topic: A Study of FM Strategy – The Case of Commercial Banks in Thailand Contributions: Four types of FM strategies were identified. Basically contributes to FM practices and core operations.

**Figure 3: Set of Processes that Result In Innovation**



Source: Doyle and Bridgewater, 1988

Akhlagi, 1999). This is very much related to the manager's characteristic to attract the customers to perceive the product and services that will increase the profit margin of organisations. Prior to this, the performance indicators are important to achieve the process of innovation towards developing strategies which are related to

quality, time and cost respectively that need to be highlighted for short and long term basis (Mudrak et al., 2004). From the statement and definition of innovation, it is clear that innovation is part of creating strategies for FM organisations to strengthening the core businesses of their organisations.

## 6. THE SIGNIFICANCE OF BUSINESS ENVIRONMENT IN DEVELOPING THE FACILITIES MANAGEMENT STRATEGIES

From the management context, business environment is an economic sense of human activities such as production, extraction or purchase of goods and performed earning profits. It is divided into two main categories which is the internal environment and external environment. Internal environment includes of 5Ms which is man, material, money, machinery and management within the control of business. Meanwhile, external environment focused on factors such as government and legal, physical, political, socio cultural and demographics. This will expand to micro environment and macro environment that focuses on suppliers, customers, market intermediaries, competitors, public etc. Business environment is a big scope that needs to be taken care of in order to achieve the organisations' objectives that leads to competitive advantage. Prior to this, FM need to be seen from a business perspective rather than viewing it as a technical base whereby the scope may include business services, legal, financial, administrative as well as space, environment, information and other support activities (Keith, 1996). Keith (1996) emphasised that the business environment provides the context to develop policy and help to shape strategic planning.

According to survey done by Goyal and Pitt (2007), FM contributes to business success and achieves organisation's goals through continuous improvements. Therefore, proactive and adaptive strategies contribute to the profit margin of FM organisations. In venturing for business opportunities in FM, four main elements have been identified namely user needs, financial and market segment, outsourcing/insourcing and also supplier. The segments in FM that could be ventured into are (Abd Hamid et al., 2011):

- a. Food services
- b. Space rental-space management
- c. Parking
- d. Build, Operate and Transfer (BOT)
- e. Build, Operate and Manage (BOM)
- f. Adopt Total Outsourcing
- g. Joint operations-staff seconded to company in a merger term
- h. Technology provider
- i. FM supply chain management
- j. Training and calibration centre
- k. Vendor Development Program (VDP)
- l. Public Finance Initiative (PFI)/ Public Private Partnership (PPP)
- m. Green initiatives – Energy Saving Sharing
- n. Space management, leasing activities e.g. car park
- o. Training

**Business environment is a big scope that needs to be taken care of in order to achieve the organisations' objectives that leads to competitive advantage.**

## 7. THE WAY FORWARD

From the review it is identified that strategies are significant in every organisation to improve effectiveness and efficiencies in providing quality services and amplify the profit margin by satisfying the customers' requirements as well as contributing the right functions and services. Besides, to create FM strategies, organisations need to have a strong leadership that covers the interpersonal, informational and decisional characteristics that will sustain the FM industry. It is also hope that the FM strategies can help to collaborate with the strategic, tactical and operational level respectively to achieve an optimum organisational performance. Other non-technical aspects need to be given priority to improve the soft skill and hard skills of every FM organisations that will benefit the FM industry in upgrading their level of performance in the future.

## 8. CONCLUSION

FM contributes to the success of an organisation both technically and non-technically. FM can be applied at every level of organisation and the strategies are important towards guiding the organisations to the right path and to achieve the objectives of core business as well as to increase the profit margin by increasing the customer satisfaction index (CSI). Innovation and business environment are part of creating the strategies for FM organisation to move towards competitive advantage and improved organisational performance. According to Chotipanich et al. (2011), there is a lack of studies on FM strategies whereby there are large gaps in identifying the characteristics of FM strategies in practice. A typology of FM strategies and methods of studying the strategies need to be identified and introduced within the theoretical ground. As a conclusion, FM strategies are significant in creating value and add value for businesses and to upgrade the performance of each level of management that will lead to innovation and business success. □

## REFERENCES

- Abd Hamid, Z., Kamaruzzaman, S. N., Ghani, M. K. & Abdul Razak, M. (2011) Report on the Research Workshop on Facilities Management Implementation Practiced by UKM Medical Centre (PPUKM) and UM Medical Centre (PPUM), 20th October 2011, published by Construction Research Institute of Malaysia (CREAM), Kuala Lumpur
- Adcroft, A., Willis, R. & Hurst, J., (2008) A New Model for Managing Change: The Holistic View, *Journal of Business Strategy*, Volume 29, No.1, pp.40-45
- Alexander, K., (1996), Facilities management – Theory and Practice, London, E&FN Spon
- Alexander, K., (2003) A Strategy For Facilities Management, *Journal of Facilities*, Volume 21, No 11/12, pp. 269-274
- Alexander, K. & Brown, M. (2006), Community-based Facilities Management, *Journal of Facilities*, Volume 24, No 7/8, pp.250-268
- Atkin, B. & Brooks, A., (2005) Total Facilities Management, London, E&FN Spon
- Barret, P., (2000) Achieving Strategic Facilities Management Through Strong Relationships, *Journal of Facilities*, Volume 18, No 10/11/12, pp. 421-426
- BIFM (2010) Homepage of the British Institute of Facilities Management  
<http://www.bifm.org.uk/bifm/home>
- Chotipanich, S., (2004) Positioning Facility Management, *Journal of Facilities*, Volume 22, No 13/14, pp. 364-372
- Chotipanich, S. & Lertariyanun, V.,(2011), A Study of Facility Management Strategy: The Case of Commercial Banks in Thailand, *Journal of Facilities*, Volume 9, No. 4, pp. 282-299
- CIDB (2010) Homepage of the Construction Industry Development Board,  
<http://www.cidb.gov.my/v6/>
- Doyle, P. & Bridgewater, S. (1988), Innovation in Marketing, Chartered Institute of Marketing. Elsevier Butterworth Heinemann
- Featherstone, P. & Baldry, D., (2000), The Value of The Facilities Management Function in the UK NHS Community Health Care Sector, *Journal of Facilities*, Volume 18, No 7/8, pp.302-311
- Goyal, S. & Pitt, M., (2007) Determining The Role of Innovation Management In Facilities Management, *Journal of Facilities*, Volume 25, No1/2, pp. 48-60
- Hackett, P.J., (2009) Innovation Is Good, Fitness is Better, *Journal of Business Strategy*, Volume 30, No 2/3, pp. 85-90
- IFMA (2010) Homepage of the International Facilities Management Association, <http://www.ifma.org>
- Johnson and Scholes (1999) *Strategy-What is Strategy*, Fourth Edition, E & FN Spon
- Kamaruzzaman, S. N. & Marinie, E., (2010) Development of Facilities Management in Malaysia, *Journal of Facilities Management*, Volume 8 No 1, pp. 75-81
- King, B., (2006), Why Do You Need To Strategize your FM Role?, Homepage of SIMEK Sdn Bhd, <http://www.simek.com.my>
- Kumar, V., (2009) A Process For Practicing Design Innovation, *Journal of Business Strategy*, Volume 30, No 2/3, pp. 91-100
- Moore, M. & Finch, E., (2004) Facilities Management in South East Asia, *Journal of Facilities*, Volume 22, No.9/10, pp. 259-270
- Mudrak, T.,Wagenberg, A.V & Wubben, E., (2004) Assessing The Innovative Ability of FM Teams: A Review, *Journal of Facilities*, Volume 22, No 11/12, pp. 290-295
- Noor, M. & Pitt, M., (2009) Critical Review on Innovation of FM Service Delivery, *Journal of Facilities*, Volume 27, No. 5/6. pp. 211-228
- Nutt, B., (1993), The Strategic Brief, *Journal of Facilities*, Volume 11, No. 9, pp. 28-32
- Nutt, B., (2000) Four Competing Futures For Facility Management, *Journal of Facilities*  
Volume 18 No. 3/4, pp.124-132
- Ong, C. L., ( 2009) Facilities Management in Malaysia, JURUTERA, Vol. 41, pp. 11-15
- Pillay, M.S. (2002), Privatisation of Hospital Surport Service, Springer, Berlin
- Pitt, M. & Tucker, M. (2008), Performance Measurement in Facilities Management: Driving Innovation? *Property Management*, Volume 26, pp. 241-254
- Price, I. & Akhlagi, F., (1999) New Patterns in Facilities Management: Industry Best Practice and New Organisational Theory, *Journal of Facilities*, Volume 5/6, pp.159-166
- Porter, E. M., (2008) The five Competitive Strategy Forces That Shape Strategy, *Journal of Business Strategy*, pp. 1-18
- Pugh, J., (2011) Doing Strategy, *Journal of Strategy and Management*, Vol. 4, No 2, pp. 172-179
- RICS (2009), RICS Practice Standard, UK: The Strategic Role of Facilities Management in Business Performance, <https://consultations.rics.org>
- Timm, R., (2011) Facilities Management – Earning The Right To Drive Strategy, FM Property Watch ([www.Property beyond.com.au](http://www.Property beyond.com.au))

# The Origin of Property Management

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The word 'surveyor' can be first found in a English print entitled "Book of Surveying" authored by John and Anthony Fitzherbert in 1523. It is mentioned that "the name of a Surveiour is a French name and is as Moche to saye in Englyshe as an Overseer". The word "overseer" gives away and hints the origin, roles and functions of a surveyor i.e. surveyors oversee land, buildings, construction and environment by measuring, managing, valuing, developing and protecting property and land<sup>1</sup>.

**T**HE MODERN SURVEYING PROFESSION HAS EVOLVED INTRINSICALLY WITH THE WAY LAND IS OWNED. Law on land in UK traditionally dates from 1066 with King Norman I introducing a system of landholding, known as the feudal system. Under the system, only the King was able to own land outright. All others were granted land by the King to hold for a certain period of time known as tenure and the period of time for which it is held is known as an estate. Overtime some of these lands were sold to aristocrats. These new owners employ surveyors of their own as land stewards who later evolved into estate managers.

The steward had overall charge of the management of the estates with bailiffs physically directing and controlling the management of individual parcels of land which include maintaining and renewing the leases of the estate properties, collecting rents etc. Their roles were varied, diverse and would be involved in all these form of works which reflect the origin of the works of modern surveyors particularly property managers.

The property management profession as we recognise today began to emerge during the eighteen century largely as a result of the industrial revolution and the resulting increased urbanisation. Surveying skills were needed outside the traditional rural areas and many surveyors moved to towns and cities to take advantage of the increased work opportunities. It was at this time that the profession started to specialise and many professionals became involved in only a single area of surveying. Several well known real estate firms such as Drivers Jonas, founded in 1725, and Richard Ellis founded in 1773 were established in the United Kingdom.

This specialisation led to the development of a number of special interest groups and societies that helped to regulate and control their specific area of the profession in the U.K. Apart from an early and short-lived attempt to form a Land Surveyors Club in 1834, the official establishment of a representative surveyors

**Note**

1. In this article, the term surveyors is used interchangeably with property managers as surveyors are indistinguishable when the initial surveying profession take shape in the 16th century and the roles constantly overlapped and had different names.

society did not occur until the later half of the nineteenth century. In 1868 the surveying clubs and societies joined together to form The Institution of Surveyors with an initial membership of less than 200. It received its Royal Charter in 1881 and since 1946 has been known as the Royal Institution of Chartered Surveyors (RICS).

With the industrial revolution, more surveying job opportunities are created in the urban areas. Newspaper editors in 1860s had criticised untrained surveyors with many articles commenting on the difficulties of distinguishing between a qualified and an unqualified practitioner. The Builder published a series of letters from the public in 1860 about "Sham Surveyors". It is also noted that:

*"Taken as a class, surveyors are second to none in intelligence, acquirements and importance to the community .... Upon their intelligence, experience and integrity, transactions involving property o the extent of hundreds of thousands of pounds entirely depend."*

*Building News (1860)*

The evolution of the property management profession in Malaysia can be traced to the establishment of professional degree courses in property management offered by local universities.

## Property Management Education in Malaysia

In those early days, surveying courses are provided at the Technical College (now Universiti Teknologi Malaysia), Gurney Road (now Jalan Semarak), Kuala Lumpur. The number of students recruited for the respective surveying courses are small of about four or five students per intake. These students are recruited as technical apprentices by Government Departments and Agencies such as the Public Works Department (PWD), Drainage & Irrigation Department (DID), Telecoms and National Electricity Board.

The lectures were conducted at the College premises (now only one block remains to house the Traffic Police HQ, Kuala Lumpur) at the High Street (now Jalan H S Lee). The duration of the course was four years with first, second and third year at the college and the fourth year field training are held at the sponsoring department. Students who performed well are selected to pursue surveying professional qualifications from the College of Estate Management. The College of Estate Management (CEM) is founded under the auspices of Chartered Auctioneers' and Estate Agent's Institute in 1919 after the Institute's President proposed the establishment of a college dealing exclusively with estate management and related subjects. In 1967 CEM becomes associated with the University of Reading. Full time students became part of the University whilst students pursuing the correspondence course remain part of the College. Many of the senior surveying professionals in the public and private sector in Malaysia are graduates of the College.

During the British Colonial administration, valuers (known as general practice surveyors) in Malaya were

mainly educated in the United Kingdom. After independence in 1967, there was a need to train and educate local valuers and Universiti Teknologi Malaysia starts offering Degree in Valuation and Property Management in 1974 at its Kuala Lumpur campus. Institut Teknologi MARA is the second institution of higher learning to offer Diploma in Estate Management and later Advance Diploma in Estate Management.

Today, degrees in property management are offered in four public universities:

- a) Universiti Teknologi Malaysia (UTM) - Bachelor in Property Management
- b) Universiti Teknologi MARA (UiTM) – Bachelor of Estate Management
- c) Universiti Malaya (UM) – Bachelor of Estate Management
- d) Universiti Tun Hussein Onn (UTHM) – Bachelor of Real Estate Management

Semi-professional qualifications i.e. Diploma in Valuation and Diploma in Estate Management are offered by UTM and UiTM, respectively. On the other hand, public institution i.e. Institut Penilaian Negara (INSPEN) is now offering Certificate courses in Property Management, Estate Agency and Real Estate Valuation. Together these public institutions of higher learning have been producing property management graduates to meet the demand for qualified professionals in the property management industry. □

## References

- Clapham, A. (1949) A short history of the surveyor's profession, London, RICS
- Clutton, J. (1868) Opening Address by the President, The Surveyors' Institution: Transactions Vol.1, Session 1868-9, pp1-24
- College of Estate Management (2012) Our History retrieved from <http://www.cem.ac.uk/aboutus/ourhistory.aspx> accessed on 4th June 2012
- North, J. (2010) "Building a name – The History of Royal Institution of Chartered Surveyors" Suffolk, Arima Publishing,
- Royal Institution of Chartered Surveyors (1964) "The history and scope of the profession of surveying" London, RICS.
- Tengku Haizam (1979) "Guidelines on Property Management" G.P. Section, ISM
- The Institution of Surveyors, Malaysia (1967) "Surveying as a Career" Petaling Jaya, ISM
- The Institution of Surveyors, Malaysia (2011) "50 Years 1961-2011: Surveying the Nation", Petaling Jaya, ISM

# Does Procrastination Reduce Stress?

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It has been generally accepted that a common, yet often-overlooked source of stress, is procrastination. To a certain degree, most of us are afflicted with the disease of procrastination and we continue to blame ourselves for failing to completely overcome the disease. But many of us continue to fight, using various founded and unfounded strategies, only to fall victim to procrastination.

THE STRESS THAT COMES FROM THINKING about unpleasant uncompleted tasks often makes us feel much worse than the actual task. In fact, a significant regression equation was established that shows a strong correlation exists between procrastination, stress and health; a decrease in health score is always associated with high scores of procrastination and stress. And stress kills.

It is a confusing situation when some say procrastination is a major source of stress while some strongly practice procrastination to reduce stress. Either way, the issue at hand is to find the connection between stress, procrastination and health, and maintaining a balance in our lifestyle.

## What is procrastination?

Procrastination, derived from the Latin verb *procrastinare*, literally means to put off or postpone for another day. Today, psychologists, behaviourists and stress experts typically define it as a learned habit derived from a human preference for short-term rewards. Generally, procrastination is not considered a problem even though research has indicated that about 20 to 30 percent of people classify themselves as such.



With a job at hand and a deadline to meet, the unfinished business only increases the stress you experience. To stop procrastination means to find time, space and resources to get the job done without the added stress of rushing for a deadline.

Many among us consider ourselves chronic procrastinators and this is one of the major sources of stress and anxiety in life. To let unfinished tasks pile up may lower our self worth and may cause us to produce feelings of guilt. Unfinished tasks and new ones coming in can lead to under-achievement, poor health, low self-esteem and missed opportunities for high achievers who are not procrastinators.

In reality, managing stress means to realise the effects of procrastination and to admit its effect once it escalates towards a dangerous level. It is this cautious situation that helps to control stress levels and its effects. A proactive person, who sincerely admits to mistakes made and promises to finish all tasks on time and who also understands that procrastination causes lots of stress in life and finds ways and means to finish the task satisfactorily, can find themselves falling back into the procrastination trap, then the stressed situation is never ending.

A problem with time management may or may not be the cause of procrastination and stress, but it could merely be something habitual for some people by their nature and it can be difficult to control or overcome. Procrastinators tend to waste a lot of time, but most of the time some personality traits are the real culprits behind this habit. To overcome procrastination requires a lot of hard work and self discipline and it may not make you feel internally transformed.

## Both extremes of procrastination

In the process of solving a problem – an analytical one – I was getting nowhere after an hour of hard thinking. I just could not proceed. I felt blank and I had no new ideas coming into my head. I was at a loss and I decided to take a break. I ended up at the local *mamak* shop enjoying my *roti canai* and *teh tarik* together with my wife and my kids. It was during the enjoyment of the local delicacies with those close to me that ideas came in like a heavy downpour. An hour later, I could solve all those problems and new ideas kept coming non-stop. This can be viewed as a form of procrastination and it worked well for me.

There must be reasonable grounds to accept both extremes of procrastination. There must be reasons why people procrastinate, and how it can overcome stress. On one hand, procrastination is found to be an effective way to deal with stress. On the other, high achievers hate procrastinators and being disorganised. One cannot achieve much in life without proper planning and goal setting. Under-achievement is a source of lots of stress and guilt in anyone's life; you are always reeling under the pressure of awareness that you have not lived up to your true potential.

Procrastination is a habit that can be broken. You just have to get out of the habit of procrastinating, and get into the habit of doing the work. Instead of agonising over the thought of doing the work and devising every conceivable reason not to start, there are certain things you can do right now to help you end this madness and begin overcoming procrastination and control your stress level.

It is all about balancing and juggling things in life such as problem-solving, avoidance and emotions. It is the life skills that are important, taking things in life in your stride, solving problems as they appear, sort things out, and the end result is satisfaction. When there is a need for problem-solving, the main thing is to be engaged actively in formulating strategies to solve the problems. During hard times, we should use emotional coping strategies to find time to reach out to friends, colleagues, and spouse or family members to vent out the challenging test. Avoidance is applied to disengage from all those stressors by using different practical ways such as exercise, sleeping, walking in the park, or watching a movie. It boils down to a balancing act.

This is not suggesting that people should become slackers but rather it encourages people to allocate the available time efficiently and not over-extend in one domain without taking enough rest; also not to deplete the available resources just for one thing and neglecting other domains. Taking a break under the premise of positive procrastination is to allow ourselves to temporarily take a break to recharge and relax, getting in tune with those around us and know the limits, then be ready to march forward again. It is an act of balancing.

## The evils of procrastination

Different people procrastinate differently. Deep rooted attitudes, stubbornness and self-limiting thought patterns are the roots of procrastination. The following are some typical procrastination acts:

- Ignore the task at hand** – suitable for less important tasks by ignoring it and make it go away in thin air, as if it is not affecting life in whatever way.
- Under-estimate the task and over-estimate yourself** – you under-estimate the work as it is less or of no importance but convince yourself that there is sufficient time to finish it at a later date. You say to yourself that you can handle the job efficiently and finish it in no time. This is a form of self deception, which chronic procrastinators often indulge in.
- Set your standards lower** – convince yourself that an average performance is acceptable under certain circumstances, thereby excusing yourself from optimum commitment and giving your best.
- Welcome distraction** – getting distraction is welcomed to divert you to unproductive activities at the cost of neglecting the really important tasks thereby perfecting the art of procrastination and stress will certainly follow suit.

- e) **Half-dead analysis** – also called paralysis analysis, these are situations where decisions over situations are delayed. Typical examples of half-dead analysis are: thinking that not taking any decision is better than making a wrong decision, always hoping for a perfect solution when there is none around, taking too much time to make an irrelevant decision, all of which forms the perfect recipe for procrastination and stress.

## Overcoming procrastination and stress

High achievers are not procrastinators. They achieve much in life with proper systematic planning and goal setting. Under-achievement is a source of lots of stress and guilt in anyone's life; you are always reeling under the pressure of awareness and consciousness that you have not lived up to your true potential.

There exists many smart techniques for killing procrastination, but the person applying them is still that good old you. It is only you who knows and understands yourself better and the ability to overcome procrastination and stress. The following steps may be fitting for you more than others, and have proved to be very effective in increasing the efficiency of many people who have tried it:

- Take note of the tasks that you are (and were) procrastinating and mark somewhere the time by which it should be completed. Think carefully of the consequences if the task is delayed beyond this time, and the cost in terms of stress and anxiety if you keep on delaying it beyond a certain time limit. Try to think of other tasks that you may have to sideline in order to make way for it later on.
- Keep yourself aware of all the distractions that are coming your way, and the time by which you are delaying yourself in accomplishing the task.
- If you are always in the 'active and prepared mode', keep a note somewhere of the time that you have actually spent in preparation, keeping track in terms of hours if the task is small or in terms of number of days or weeks if the task takes a longer time to complete.
- If you consider the task to be 'boring', plan ahead for some diversions or breaks. A task that challenges you raises your motivation levels. So, try to make goals that are sufficiently challenging for you, but most importantly, practical ones.
- If you consider yourself inadequate for the task at hand, be honest about it and

take steps to seek help, delegate or outsource the task to someone else you trust. Think of ways to cut corners without cutting quality. If you really make it a point to look for such shortcuts, you will likely start seeing them everywhere. The main thing is to achieve the end-result satisfactorily under these circumstances.

- It might be that you are over-burdened with many important tasks. You need to seriously follow the techniques of good time management and stress management which will help in reducing procrastination and stress levels in life. When you are too stressed, you do not always think clearly (and rationally). Sometimes you feel trapped and overwhelmed. If the stress response is constantly triggered, the tendency is that you may operate in emergency mode, reacting to demands of proactively seeking out simplified solutions without really thinking the consequences or the end results. Also, chronic stress can impact your health and emotional wellness, creating even more problems.
- Just do it by setting realistic goals. Procrastinators always feel discouraged and start doubting their own ability and talent to handle the task. On the contrary, it is always important that once engaged in a job, make it a point to finish it and maintain quality while enjoying the satisfaction of having the job done. This is the most important promise that you should make to yourself if you want to control procrastination and stress.
- Mark the task clearer to you. If something is vague, then you do not feel sufficiently motivated to undertake it. Make a clear picture in your mind of the work that has to be done. Understand the goal that has to be achieved. Mark the finishing point of the task so that you are clearer as to when you should start work and when to end the task. Thinking in terms of goals raises motivation levels as the path ahead is undoubtedly clearer.
  - Imagine the proximity of reward. If the rewards are far off, then the task loses its shine and glamour. You feel motivated if you can smell the payoff. The proximity of reward raises levels of expectations, and makes you feel more energised. If the task which you are procrastinating takes a long time to finish, then it is natural though not desirable, that you do not feel sufficiently motivated to do it.
  - Break the task into smaller job compartments with clearly defined goals to raise energy levels. Each goal should be such that it is realistically achievable in the near future,



sufficiently interesting and challenging. Pondering through all the steps of the task may raise motivation levels, as sometimes, the very vagueness of the objective holds back the job from starting it.

- k) Just keep on moving. It is important that you just make a start. It is equally important that you start right by making initial steps of the task such that you can do it unquestionably and at ease. When your initial efforts meet with success, you feel more motivated and confident in completing the task. Even if it is the tiniest step of beginning a task, take it as one of those small challenges in doing something. Sometimes, you keep on avoiding taking up a task due to one reason or another. But once you start doing it, you get interested in it and then follow it through to its completion.
  - l) Try and weave a task into your daily routine such that it has a predetermined time and it fits neatly into the sequence of your daily tasks. The chances of procrastinating a task increases if you have to take some form of decision every time you have to do it. The more choices you have to make, the more chances that you will end up procrastinating. Making an important task part of your daily routine following a pre-determined manner is a very effective method that you will responsibly do it.
  - m) Do the easy things (or the hard things) first. Doubting your own ability to tackle a task is a disaster in the making. One way to build self-confidence is to tackle the easier parts of the job first. This can boost you in two ways. Firstly, as you complete the easier tasks, the job may feel less daunting, and it will be easier to stop procrastination as you complete it. Secondly, once the easy parts of the job are completed, you will be left with less overall work to do, so the rest of the job is smaller and may seem easier to take on. In both ways, your confidence can grow by taking on the easy parts of the job first.
- On the other hand, if you know you can do the task at hand just because you are familiar with it, you can just revert back when you think of the work that is involved, save yourself some stress and tackle the unpleasant or difficult parts of the job first. Save yourself all the discomfort that comes out of it and avoid it before you finally stop procrastinating and getting stressed. Get the hard parts out of the way and the remaining components will be much easier to do.
- n) Accept what you have achieved even if it is not perfect. Do not always expect perfection in whatever things you do. Try accepting failure in some of the tasks that you do and remember that 'doing and trying your best' is more important than 'succeeding'. Behind every failure there are chances of success. You may fail many times in

## **Ever wonder how to stop procrastination? Many people do, including you and I have been wondering about this at one point or another.**

your effort to control procrastination and stress in your life, but perseverance in your endeavour is paramount as success will certainly come one day.

### **Breaking the habit of procrastination**

Ever wonder how to stop procrastination? Many people do, including you and I have been wondering about this at one point or another. If you are seriously wondering how to stop procrastination, you may be relieved to learn that there are several practical ways to begin tackling this common problem. The next time you find yourself battling procrastination, you will have more tools on your side.

While we may tackle certain tasks with zest and enthusiasm, some tasks leave us feeling paralysed with inertia, watching the deadlines approach (or pass us by) as we wonder how to force ourselves to move forward. Getting on with life under control will reduce daily stress. If you are willing to make some self-adjustments, things can change but it involves a process to be followed. It is not complicated and it is not going to happen overnight. It requires more thought and time to get it done, and you need to plan how to do it. Spending time planning ahead will save you time and energy later. All you have to do is to pull yourself together, set logical systems for getting things done, and have time for the life you want.

One thing that I have found to be very helpful is to just go ahead and get my unpleasant tasks over early in the day. Every time I do that it makes me feel much better. The stress that comes from thinking about unpleasant tasks often makes me feel much worse than the actual task itself. In fact, that is very often the case.

Procrastination can lead to stress. And stress kills. □

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Personal branding is a must for any professional out there. It's the way to make sure potential clients, employers and business partners find out about you and what you have to offer. And though how you present yourself in the real world is essential, your online presence has become equally important.

# Is Your Personal Brand Surviving Or Thriving Online?

Maria Duron

PRACTICALLY EVERYTHING CAN BE DONE online and this is where most people can be found. This is why it's become vital that you make sure your personal brand thrives online. How do you do this exactly? Here are some useful tips to help you get started.

## 1. Utilise social media

Social networks are where everyone's increasing their time spent online. It's important for your personal branding that you get out there and utilise social media. You want people to know about you, to consider you an expert at your niche, so it's essential that you engage them in meaningful conversations. This is why you need social media.

Social media makes it easy for you to interact and connect with people who have similar interests as well as potential clients and employers. LinkedIn, for example, is a major social networking site for professionals, and it's certainly a site you should participate in to discover companies and like-minded professionals. And, just recently released the ability to apply to positions directly from LinkedIn.

Creating a Facebook and Twitter account is also a great way for you to connect with others and highlight your personal style, interest, character and competence. Though less professional than LinkedIn, they're a great

**Social networks are where everyone's increasing their time spent online. It's important for your personal branding that you get out there and utilise social media.**





**Making your personal brand thrive online can be tricky, but utilising social media, doing SEO and offering valuable content are excellent steps to get you started on it.**

way to have meaningful two-way conversations with people who share similar interests.

And of course, creating a blog is a great way to showcase expertise and get people to interact with you. Make sure that you get a domain that contains your full name, to help with your personal branding campaign.

## 2. Don't forget SEO

In order for your personal brand to thrive online, you definitely can't forget to use SEO. As you know, Google is still the number one site utilised by people, and everyone is pretty much Googling everyone else. So you can be certain that potential clients, business partners and employers are Googling you to find out what information there is online about you.

This is why you can't ignore SEO in your personal branding campaign. You want to make sure that your site, or blog, ranks well when people do a search on your name. You want to make sure that the information people can find about you is the right one.

## 3. Offer valuable content

When you offer great and useful content, you will always have an audience who keeps returning to learn more. It's critical in your personal branding campaign online that you engage and keep your audience's interest, so they

don't turn away from your site or blog and go to someone else.

The key here is to think of what your purpose is and what need it is among people that you want to address. As a professional, you're basically offering your expertise or a solution to someone's problem, so you should make sure that the content you offer shows this.

The newest network "on the scene" is Google+ and there you can do certain things to create a personal brand that is even more visible to the people and networks you are targeting. Be sure to fill out your profile completely and in the nickname section utilise your name that most people search for you under anyway.

Another useful part of the profile is the "Other Names" section.

List names like:

- Your maiden name
- Your business name
- Your title

All of this makes it easier for people to find you for what they know you for and it also associates those words, titles and business with your name, too.

Making your personal brand thrive online can be tricky, but utilising social media, doing SEO and offering valuable content are excellent steps to get you started on it. Don't let yourself become left behind in the online world. Make sure you start today in your online personal brand communication plan. □

*Maria Elena Duron, CEO (chief engagement officer), buzz2bucks | a word of mouth marketing firm, is skilled at making networks "work" and harnessing powerful online and offline buzz, she facilitates online visibility services and word of mouth coaching and workshops – taking companies and professionals from buzz-worthy to bucks-worthy, <http://buzz2bucks.com>.*

# Reducing and Managing Carbon Footprint: Be a Responsible Tenant of the Earth

Lee Chin Sheng  
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**C**ONTEMPORARY EXTENSIVE DISCUSSION ON QUANTIFYING human influences on climate has triggered the Stern Report which emphasised on global action to sustain growth and guard against risks of climate change or global warming. It is considered to be one of the most stressing issues that are presently facing humankind. The anthropogenic driver towards climate change is the rising concentration of greenhouse gasses (GHG) in the atmosphere (Fong et al., 2008). Daily human activities that contribute to GHG emission is one of the main repercussion of greenhouse effect (Schmidt, 2008) and countries, organisations even individuals alike are starting to take responsibility for making the emissions reductions to stabilise global warming and minimise environmental degradation (Abbott, 2008).

As defined by the UK Carbon Trust (2011), carbon footprint is the total set of GHG emissions caused by an organisation, event, product or person through activities such as goods manufacturing, commuting, energy use, waste generation and so on. Carbon footprint is also a measurement of total carbon dioxide (CO<sub>2</sub>) produced through all daily activities of human that contribute to climate change and weigh by units of metric tonnes of CO<sub>2</sub> equivalent. The term carbon footprint is stemmed from the fact that CO<sub>2</sub> is the main contributor among all types of GHG. Types of main GHG which spelled out in the Kyoto Protocol (1998) are tabulated in Table 1 with examples of general source of each:

Table 1: General Types of GHG

GHG	General Sources
Carbon Dioxide (CO <sub>2</sub> )	<ul style="list-style-type: none"> <li>Naturally occurring through carbon cycle</li> <li>Combustion of fossil fuels</li> <li>Use of petroleum-based products</li> <li>Municipal solid waste combustion</li> </ul>
Nitrous Oxide (N <sub>2</sub> O)	<ul style="list-style-type: none"> <li>Field burning of agriculture residues</li> <li>Incineration of waste</li> <li>Human sewage</li> </ul>
Perfluorocarbons (PFCs)	<ul style="list-style-type: none"> <li>Cosmetic production</li> <li>Aluminium production</li> <li>Semiconductor manufacturing</li> </ul>
Hydrofluorocarbons (HFCs)	<ul style="list-style-type: none"> <li>Air-conditioning</li> <li>Refrigerants</li> </ul>
Sulphur Hexafluoride (SF <sub>6</sub> )	<ul style="list-style-type: none"> <li>Electrical transmission and distribution</li> <li>Magnesium production and processing</li> </ul>
Methane (CH <sub>4</sub> )	<ul style="list-style-type: none"> <li>Landfills</li> <li>Coal mining</li> <li>Incineration of waste</li> </ul>

Municipality tends to generate more carbon footprint compared to rural and sub-urban area. This is due to the swift and intensive development in the municipalities as a response of increasing market demand for products, services, luxurious items and so on, where rapidly growing populations enjoy higher living standards and material affluence (Fong et al., 2007). The bad effects associated with increased carbon footprint which lead to climate change are:

- Sea level rising as a result of the melting of the ice caps which could cause floods
- Depletion of ozone layer that could bring to the rise of temperature and direct penetration of ultraviolet (UV) which is harmful to skin
- Increased extreme weather which could change the weather system of the earth and ocean temperature, giving rise to probability of more frequent floods and storms
- Impacts on economic condition stemmed from the occurrence of natural disaster



- Impacts on agriculture production and its productivity from the effect of global warming
- Change of ecosystem which could trigger the most deadly diseases to human such as Malaria and Dengue fever
- Loss of biodiversity and animal extinction
- Diminished food and water supplies

Carbon reduction can no longer be a fringe concern but an imperative responsibility that must not be neglected by all human beings. Urgent need for major change in the way we live at present is the mitigation in preserving our planet. Negligence of mankind towards the subject of reducing carbon footprint will not only bring a momentous implication to the earth, but also to our future generations. The main problems hindering the public awareness and consciousness on the hazards associated with increased carbon footprint are mainly due to behavioural problem, negative mindset, low morality, lack of legislation in force and so on.

The key challenge facing humanity today is on how to achieve equilibrium between economic growth and development through sustainable development whereby resources will be utilised wisely, leaving no pollution or damage to the environment so that our future generations will be able to benefit the good quality of life which they deserve. The responsibility lies on every individual who lives on the earth. A paradigm shift has to be in place on how to plan, design, develop, operate and maintain future cities and to transform existing developed conurbation towards a sustainable one. In view of the fact that reduction of carbon emission is the major step towards preserving the environment, passive initiatives should be taken to instil our enthusiasm as a tenant of the earth in minimising carbon footprint and even attempting to achieve carbon free through the following approaches:

- Adopt renewable energy technologies as the main source of power generation
- Turn off household electronic goods and appliances such as fans and air-conditioners when not in use and do not leave it on standby mode as this will also consume a substantial amount of electricity
- Maximise the use of natural lighting to reduce the need for artificial lighting
- Reduce fossil fuel transportation demand in buying locally produced goods and services
- Plan the driving journey through shortest distance in reducing excessive emission of GHG released from the exhaust
- Organise car pool for regular commuting whenever possible
- Cultivate 4R (reduce, reuse, recycle and repair) principles in handling waste generated and unwanted items
- Maximise green areas and plant more trees in offsetting carbon footprint
- Use a recycle bag or biodegradable bag instead of conventional plastic bag which is not recyclable
- Publicise the threats associated with global warming and promote the benefits and methods to reduce carbon footprint □

## References

- Abbott, J. (2008), What is a Carbon Footprint?, The Edinburgh Centre for Carbon Management
- Carbon Trust (2011), Carbon Footprinting (online) Available at <http://www.carbontrust.co.uk/cut-carbon-reduce-costs/calculate/carbon-footprinting/pages/carbon-footprinting.aspx>, accessed on 15 August 2011
- Fong, W.K, Matsumoto, H., Ho, C. S. and Lun, Y. F (2008), Energy Consumption And Carbon Dioxide Emission Considerations in the Urban Planning Process in Malaysia, UTM Institutional Repository
- Fong, W. K., Matsumoto, H., Lun, Y. F. and Kimura, R. (2007), System Dynamic Model for the Prediction of Urban Energy Consumption Trends, Proceeding I of the 6th International Conference on Indoor Air Quality, Ventilation & Energy Conservation in Buildings (IAQVEC 2007), 28-31 October 2007, Sendai, Sendai Japan. 762-769
- Kyoto Protocol (1998), Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC), UNFCCC, Kyoto
- Schmidt, M. (2008), Carbon Accounting and Carbon Footprint – More than just Diced Results?, International Journal of Climate Change Strategies and Management, Vol. 1 No. 1, pp. 19-30, Emerald Group Publishing Limited

## Book Review

# Kennedy-Grant on Construction Law

Tomas Kennedy-Grant; 2012,  
958 pages, LexisNexis NZ Ltd, New Zealand, 2nd edition  
**ISBN 9780408717861**

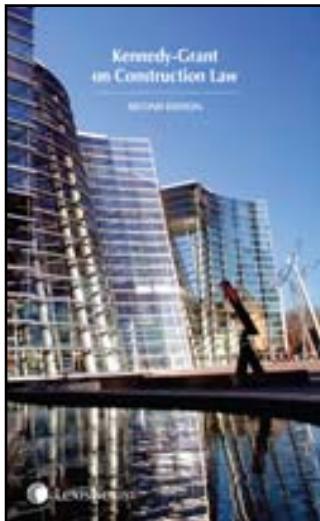
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**I**T GIVES ME GREAT PLEASURE TO write this book review of Kennedy-Grant on Construction Law. There is a dearth of construction law textbooks particularly in the Asia Pacific region. This latest book which is the second edition of "Construction Law in New Zealand" written by Tomas Kennedy-Grant, an eminent Silk as well as a Chartered Arbitrator is therefore a most welcome addition. The book is undoubtedly a culmination of the author's research, experience and insights in construction law after having practised it for 44 years.

Since this review is meant for publication in Malaysia, I must say that New Zealand construction law and jurisprudence have already found its way into this country. In this regard, the old case of **Lodder v Slowey** [1904] AC 442 that stood the test of time on quantum merit claims following the termination of the building contract has been followed in the Federal Court in **Tan Hock Chan v Kho Teck Seng** [1980] 1 MLJ 308. The celebrated case of **Canterbury Pipe Lines Ltd v The Christchurch Drainage Board** [1979] 16 BLR 76 on suspension of work has been adopted by the Court of Appeal in **Pembinaan LCL Sdn Bhd v SK Styrofoam (M) Sdn Bhd** [2007] 3 CLJ 185. Finally, the case of **Invercargill City Council v Hamlin** [1996] 1 All ER 156 on duty of care of local authorities has also been adopted by the Federal Court in **Majlis Perbandaran Ampang Jaya v Steven Phoa Cheng Loon & Ors** [2006] 2 CLJ 1.

I am glad to note that the coverage of this book has also been significantly extended to include



discussion on English and Australian cases. This inclusion makes the book an invaluable source of reference for construction law practitioners and contract administrators in Malaysia.

The book is well and systematically arranged in ten parts beginning with the chapters on the overview of the construction process followed by the general law of contract and torts and the relevant statutory laws. There is then substantial treatment on construction contracts including chapters on professional consultancy contracts, main contracts, sub contracts and supply contracts. An entire chapter has also been devoted to the impact of the tort of negligence on construction law. The closing chapters of the book focus on dispute resolution including statutory adjudication. The chapter on adjudication under the Construction Contracts Act 2002 will be of interest here because several provisions in the forthcoming Construction Industry Payment and Adjudication Act 2011 are similar conceptually.

The style of writing is succinctly clear and suitable for both the construction law practitioner and the technical contracts administrator. The former will find the authoritative footnote annotations beneficial for purposes of construction dispute advice and resolution.

I wish to congratulate Tomas Kennedy-Grant for his very fine effort. This book is the next best to seeking advice directly from the author and I have no hesitation to recommend the book to the Malaysian Construction fraternity. □

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