

The use of risk management construction essay



**ASSIGN
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**Dissertation submitted in partial fulfilment for the degree of
Bachelor of Science in Architectural Technology**

UNIVERSITY OF WESTMINSTER

School of Architecture and the Built Environment

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Abstract
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Introduction to research

Introduction

To achieve a sustainable code level for a building not only the performance is required but also the achievement of managing the construction with sustainable approach. The world's population is increasing every year. In this concept it is good news for the construction industry. But we need to keep in mind that in future the industry will have a limited amount of natural source. Also the greenhouse gas will change the way we live. In a construction the designer/contractor can act into the approach only by introducing to the sustainable ideas.

Background and Context

In UK the government is aware of the non-sustainable construction method therefore the government and the private sector are acting towards the sustainable practise in construction management. The government introduced to assessment methods such as BREEAM and Sustainable Codes. Guidelines for good practice as in Construction Standards by Building Research Establishment and also by promoting sustainable design [Addis and Talbot (2001)].

Aims and Objectives

Aims

The research has two aims. Firstly, justify the issues in managing residential construction. Secondly, what is the solution for improving sustainability in managing construction?

Objectives

To achieve the research, following objectives were outlined: Review the current knowledge in sustainability and management in construction. Search existing literature which states the issues of sustainability within construction management. Search ideas of previous statement in improving construction management issues according to sustainable approach. How risk management can implement improvement of sustainability in construction management.

Research Methodology

Introduction to Research Methodology

Definition

Research is often defined or referred to as knowledge. Research is an academic activity and as such the term should be used in a technical sense. Research is an original contribution to the existing stock of knowledge making for its advancement. It is the pursuit

Qualitative

The three most common qualitative methods, explained in detail in their respective modules, are participant observation, in-depth interviews, and focus groups. Each method is particularly suited for obtaining a specific type of data. Participant observation is appropriate for collecting data on naturally occurring behaviours in their usual contexts. In-depth interviews are optimal for collecting data on individuals' personal histories, perspectives, and experiences, particularly when sensitive topics are being explored. Focus groups are effective in eliciting data on the cultural norms of a group and in generating broad overviews of issues of concern to the cultural groups or subgroups represented.

Quantitative

Is a type of research method which uses sources of such as the survey, people opinion also it relies less on interviews, observations, small numbers of questionnaires, focus groups, subjective reports and case studies but is much more focused on the collection and analysis of numerical data and statistics.

Inductive

Inductive approach is where you undertake your research based around observations or an idea, and let theory come out at the end of your research, on this, [Saunders et al.(2007, [p. 57])] states that: " For other research projects you will be planning to explore your data and to develop theories from them that you will subsequently relate to the literature." Then, it can put forward a possible theory or solution to the tentative hypothesis that has been developed.

Deductive

Deductive research approach is based on the general idea to reach at the specific situation and is linked with the. Deductive reasoning works from the more general to the more specific. Sometimes this is informally called a " top-down" approach. We might begin with thinking up a theory about our topic of interest. We then narrow that down into more specific hypotheses that can be tested. Observation was introduced to the deductive approach by Francis Bacon in the 1600s as he felt that the deductive reasoning was not robust enough [Cohen et al., (2000)]. As Saunders et al. (2007, [p. 57]) defines:" For some research projects, you will use the literature to help you identify theories and ideas that you will test using data. This is known as a deductive approach [emphasis in original]. In which you develop a theoretical or conceptual framework, which you subsequently test using data."

Primary

Primary data is the knowledge that is intending to collect for the research study. The true tacit knowledge is that which cannot be codified or written down [Bhardwaj and Monin, 2006; Elton (2010)]. It is learnt by observation and experience through trial and error. Therefore primary data is always intent to be collected. Meaning of tacit knowledge is that which cannot be codified or written down research could be the following:

Interviews Observation Questionnaire Surveys Sampling

Secondary

The key point in secondary data is that they have to be reliable resources these can be access data for example reports, textbooks, journal, magazines, and websites. However, it is the biggest encyclopaedia online, and can be used as a launch pad to get a basic understanding of a term. Nevertheless, as I have said, this data then needs to be quantified against more traditional academic/rigorous sources. Secondary data is often referred to as ' explicit knowledge' that which everyone has accesses the public domain.

Ethics

In addition, research ethics educates and monitors research to ensure a high ethical standard. Research that involves human subjects or participants raises unique and complete ethical, legal, social and political issue. Ethic is specifically interested in the analysis of ethical issues that are raised when people are involved as participants in research [Nancy Walton (2007)].

Broadest objective is to protect human participants. Ensure that research

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conducted in a way that serves interests of individuals. Examine interests of individuals.

Tools

The tools are type of techniques which can be used in the research methodology. It may be useful as ideas in themselves, and may be useful as a record of how your thinking developed through the research process keep reference table. Starting with the first exchange of information among computers in the late 1960s, the Internet has grown to the point that its impact is felt around the world. Among the many groups of people affected by the Internet are organizational researchers who conduct surveys. The first Internet tool used for survey research was email. Organizational researchers have been using or exploring the feasibility of email use as a survey data collection tool since the 1980s [Bachmann, Elfrink, & Vazzana, (1996)].

Test

This kind of research methods are used to justify their thoughts with testing result these could be done by using testing equipment. The testing of your hypothesis/theory via the use of statistical data is where you either confirm or, refute (reject) your hypothesis/theory.

Relevance

Specificity represents the total number of relevant, but methodologically unsound articles not detected by the search filter divided by the total number of relevant, methodologically unsound articles in existence. This examines the search filter's ability to screen out false positives. Precision

represents the total number of relevant, methodologically sound citations detected by the search filter divided by the total number of items found.

Research Method used

The dissertation methodology will be mainly based on qualitative and quantitative research. These methods will state the previous issues and also discover the solution of the complications. Secondary research applied to determine the literature review. Also tools will be used for receiving opinions from different professions. By using online survey tool it need to be made sure the client is satisfactory to writing up the client's opinion upon the research. These may be an ethical issue but it need to be considered for the research. Relevance methodology must be applied to prove of the research statement. Fig 1 Research Methodology (Published on March 2006 at <http://itcon.org/2006/4/>)

Research Diagram

Fig 2 Diagram of research methods [DR. S, G Naoum Dissertation research & Writing for Construction Student]

The Literature Review

Introduction

This section of the dissertation seeks to appraise the points of the literature review of discovering how in the UK the sustainability approach can be improved in construction management. It appears that the attention on sustainability issues due to lack of information [Nazirah Zainul Abidin(2005), Christine L. Pasquire (2005)]. However it has been less popular in the delivery of infrastructure projects and buildings. There, participation has

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been curtailed by the conceptualization of construction as primarily a technical process [Seymour and Rooke (1995)]. Therefore the UK construction industry has a crucial role in delivering a sustainable energy society. Population development is based on construction of buildings and infrastructure and unfortunately construction is also responsible for impact on the environment [Shen and Tam (2002)]. While off-site activities relate to the mining, quarrying, manufacturing and transportation of different materials, representing 10% of national energy consumption in production and transportation of materials [Patermann (1999)]. In addition, the construction industry is a major user of non-renewable energy sources, minerals and metals [Spence and Mulligan (1995)], using over 420 million tonnes of material each year [Environment Agency (2003)]. Finally, the construction industry in the UK is responsible for almost a third of all industry related pollution accidents and for almost 50% of all accidents at work [Patermann (1999)]. The term sustainable development itself has many interpretations [Barrow, (1997); Lutzkendorf and Lorenz, (2005)]. Firstly in research the aim is to identify the categories of ideas which can improve the management of sustainability within construction.

Review of Sustainability in Construction

In last decade several initiatives have been taken to encourage industry to support the agenda of sustainable development. The findings suggest that very few of the major companies positively embrace these ideas. It is subsequently argued that the fragmented and diverse nature of the industry further complicates the transition towards sustainable construction.

Definition of Sustainability

Sustainability has been high on the public agenda since the Rio Earth Summit of 1992, and subsequently strategies for sustainable construction have emerged across many European states [Myers, (2004)]. This has occurred for two reasons, firstly because of the significant environmental and social impacts created by the industry, and secondly, and more importantly, because it has always lagged far behind other sectors. Indeed, during the last decade, in the UK, several government initiatives encouraging reform in the construction industry have been published [Latham, 1994; SBTG, 2004].

Definition of Sustainable Development

Sustainable Development has been defined in many ways, and in term an oxymoron and widely disputed [Williams and Dair (2007), Rassadi et al. (2006), Redclift (2005)]. The definition contains two crucial elements. First, it accepts that the basic needs of the world's poor people must be provided to allow a reasonably comfortable way of life. Second, it accepts that the environment's ability to meet present and future needs must be sustained. The definition of the WCED also suggests that sustainability is often cast as the 'triple bottom line' of environment, society and economics (Hall and Purchase, 2006). Pearce, Dobson (2007) suggests that each gain for the common good will also be a gain for each and every individual member of the society, so thoughts of environmental citizenship begin to emerge from the fog of policy options. Thereby, it is clear that the leading sectors that are contributing to the development of nations, such as construction, transportation, agriculture etc., have great potentials to achieve a sustainable future. Sustainability is an overarching concept that affects, and

can be affected by, every aspect of infrastructure development. Sustainable construction has inevitably been dubbed as green construction these describes as construction industry in attaining sustainability

Sustainable Issues in Construction

Environmental Sustainable

In an ideal world, human activity is only environmentally sustainable when it can be performed or maintained indefinitely without depleting natural resources or degrading the natural environment [Chaharbaghai and Willis, (1999)]. However, in reality, this is impossible because 'construction' has the tendency to destroy the ability to sustain [Ofori et. al., (2000)]. The aim of addressing environmental sustainability, therefore, is not to eliminate the impact but to reduce it. Environmental protection is important because construction is a major contributor to climate change, resource depletion and pollution at a global level [Ofori et. al., 2000; Chen and Chambers, (1999)]. There are two concerns under this aspect: the built environment and the natural environment.

Economical Sustainable

Economic sustainability refers to the opportunity of savings and commercial advantage through good practice behaviour. Economy can be seen from two perspectives: micro and macroeconomic. Micro economic focuses on the factors or activities which could lead to monetary gains from the construction project such as adopting a suitable management strategy, the use of effective techniques such as VM (Value Management), time, cost, quality and risk management [Addis and Talbot, 2001], increasing productivity and optimising human resources [Parkin, (2000)]. All these will

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lead to the success of the project bring profit to the clients; improve the image and promoting competitive edge in the industry. Fig 3 Plan for Dissertation progression. References Bhardwaj, M. & Monin, J. (2006). Tacit to Explicit: An Interplay Shaping Organization Knowledge. *Journal of Knowledge Management*, 10 (3), pp. 72-85. Bordens, K. S. & Abbott, B. B. (2005). *Research Design and Methods - A Process Approach*, 6th ed. New York, McGraw-Hill Companies. Bryman, A. (2008). *Social Research Methods*, 3rd ed. Oxford, Oxford University Press. Cohen, L., Manion, L. & Morrison, K. (2000). *Research Methods in Education*, 5th ed. London, Routledge Falmer. Stevenson F and Williams N (2000) *Sustainable Housing Design Guide for Scotland*, (available online <http://www.archive2.official-documents.co.uk/document/deps/cs/shdg/index.html> [accessed 04/12/2009]). Nancy W (2000) *What is Research Ethics?*, (available online <http://www.researchethics.ca/what-is-research-ethics.htm> [accessed 04/11/2012]). Strategic Forum for Construction (SFC) (2008) *Strategic for sustainable construction*, (available online <http://www.strategicforum.org.uk/> [accessed 06/12/2012]). Tam C M (1999) " Use of the internet to enhance construction communication: Total information Transfer System", *International Journal of Project Management*, Vol. 17, Num. 2, pp. 107-111. Terra J C and Angeloni T (2002) *Understanding the difference between Information Management and Knowledge Management*, (available online http://www.providersedge.com/docs/km_articles/Understanding_the_Difference_Between_IM_and_KM.pdf [accessed 09/11/2012]). The Scottish Government (2010) *Housing Statistics for Scotland - Key Information and Summary Tables*, (available online <http://www.scotland.gov.uk/Topics/Statistics/Browse/Housing/Regeneration/HSfS/KeyInfoTables> [accessed 05/12/2012]). Vanegas J A, <https://assignbuster.com/the-use-of-risk-management-construction-essay/>

DuBose J R and Pearce A R (1995) " Sustainable technologies for the building construction industry", Proceeding of Symposium on Design for the Global Environment, Atlanta GA. Nazirah Zainul Abidin, Christine L. Pasquire, (2005) " Delivering sustainability through value management: Concept and performance overview", Engineering, Construction and Architectural Management, Vol. 12 Iss: 2, pp. 168 - 180 Schneider, M. (1999), " Value management and sustainability: an opportunity to revolutionize the construction industry", Managing Sustainable Values, Proceedings of the International Conference of the Institute of Value Management, Hong Kong. Sustainable Development (2002), " What is sustainable development?", Sustainable Development, available at: www.sustainabledevelopment.gov.uk/what_is_sd/what_is_sd.htm [accessed 05/12/2012] Patemann, C (1999), " The fifth EU framework programme and its consequences for the construction industry", Building Research & Information, 27(6), pages 412-418. Spence, R and H Mulligan (1995), " Sustainable development and the construction industry", Habitat International, 19(3), pages 279-292. Environment Agency (2003). " Position Statement Sustainable Construction". DEFRA). Version 1. Shen, L Y and V Tam (2002), " Implementation of environmental management in the HongKong construction industry", International Journal of Project Management, 20, pages 535-543. Seymour, D. A. and Rooke, J. (1995) The culture of the industry and the culture of research. Construction Management and Economics, 13(6), 511-523. Barrow, C. J. (1997). Environmental and Social Impact Assessment - an introduction. London: Arnold Lützkendorf, T. and Lorenz, D. (2005). Sustainable property investment: valuing sustainable buildings through property performance assessment. Building Research and Information, 33 (3), 212-234. Myers, D. <https://assignbuster.com/the-use-of-risk-management-construction-essay/>

(2004) *Construction Economics—A New Approach*, Spon Press, London.

Latham, M. (1994) *Constructing the Team*, HMSO, London. Egan, J. (1998)

Rethinking Construction: The Report of the Construction Industry Taskforce,

DETR, London. DETR (2000) *Building a Better Quality of Life: A Strategy for*

More Sustainable Construction, DETR, London. Hall M, Purchase D. 2006.

Building or bodging? Attitudes to sustainability in UK public sector housing construction development. *Sustainable Development* 14(3): 205–218. Pearce

D. 2006. Is the construction sector sustainable? Definitions and reflections.

Building Research and Information 34(3): 201–207. Addis, B. and Talbot, R.

(2001), *Sustainable Construction Procurement: A Guide To Delivering*

Environmentally Responsible Projects, CIRIA C57 1, CIRIA, London.

Chaharbaghi, K. and Willis, R. (1999), *Study and Practice of*

Sustainable Development, *Engineering Management Journal*, 9(1), 41 - 48.

Ofori. G. (1998). *Sustainable Construction: Principles and a Framework*

for Attainment - Comment. *Construction Management and Economics*, 16,

141 - 145. Ofori, G., Briffett, C., Gang, G. and Ranasinghe, M. (2000), *Impact*

of ISO 14000 on Construction Enterprises in Singapore, *Construction*

Management and Economics, 18, 935 - 947. Parkin, S. (2000b), *Context and*

Drivers for Operationalizing Sustainable Development, *Proceedings of the*

Institution of Civil Engineers: Civil Engineering, 138(specialist sue), 9- 15.

Pasquire, C. L and Maruo, K. (2001), *A Comparison of Value Management*

Methodology in the UK, USA and Japan, *Journal of Financial of Property and*

Constrictions, 6(1), 19 - 29. Pasquire, C. L (1999), *The Implications of*

Environmental Issues on UK Construction Management, *Engineering,*

Construction and Architectural Management, 6(3), 276 - 286. Phillips, M. R.

(1999), *'Towards Sustainability and Consensus rough Value Management:*

<https://assignbuster.com/the-use-of-risk-management-construction-essay/>

Case Study", Managing Sustainable Values, Proceedings of the International Conference of the Institute of Value Management, 6 -7 May, Hong Kong.(Fig 1. 1) Dr S, G Naoum (2007). Dissertation research & Writing for Construction Student. 2nd ed. UK: Elsevier Ltd.. 50-190. Bachmann, D., Elfrink, J., & Vazzana, G. (1996). Tracking the progress of e-mail vs. snail mail. Marketing Research, 8(2), 30-35.