CRITICAL SUCCESS FACTORS FOR SUSTAINABLE GREEN CLEANING SERVICES AND ORGANISATIONAL PERFORMANCE

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DEDICATION

Specially dedicated to my beloved wife and my siblings

To God be the glory

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ABSTRACT

The development of green buildings as a push to accomplish sustainability has prompted the necessity for a new approach to building maintenance and operations, especially in cleaning facet. Cleaning has turned out to be one of the critical components that should be considered for the well-being and overall performance of a building being the most significant part of building operations and maintenance cost. However, conventional cleaning presents diverse health and environmental problems that can only be addressed by green cleaning. Hence, green buildings require green cleaning services to render economic, social and environmental benefits. However, green cleaning services is not sustainable in Malaysia in spite of the potential benefits due to implementation problems. These problems include a low level of awareness, low level of training and education, lack of green cleaning requirements, ineffective communication, and the limited supply of green products and material. These factors contribute to the failure of sustainable green cleaning project services implementation. Therefore, this research aims to explore the relationship between the critical success factors for sustainable green cleaning services and organisational performance. The objectives of this research are: (a) to identify the Critical Success Factors (CSF) required to implement sustainable green cleaning services; (b) to identify the sustainable green performance factors of organisation; (c) to develop a structural equation model of critical success factors for sustainable green cleaning services and organisational performance. The research methodology adopted to achieve the aim of the study is a questionnaire survey. The data were analysed through Explorative Factor Analysis, Confirmatory Factors Analysis (CFA) and Structural Equation Modelling (SEM) using Statistical Package for Social Science (SPSS) and Analysis of Moments Structures (AMOS). Based on literature review, five categories of green cleaning critical success factors with twenty-three indicators were identified. Three factors of sustainable green cleaning performance were also identified with fifteen indicators through literature review. At the critical ratio (t) above ± 1.96 indicating a statistically significant path ($p < 0.05$), the findings indicate that the key determinants for sustainable green cleaning services implementation are human and physical resources having a high correlation (β=0.805, 0.803) and statistically significant (t =5.351, $p \leq 0.05$; t = 4.085, $p \leq 0.05$) with critical success factors. The study likewise demonstrates that both environmental and social factors are positively related and were statistically significant to organisation performance at $p < 0.05$ and a critical ratios threshold value of > ±1.96. The results show that critical success factor for sustainable green cleaning services is positively related and statistically significant to organisation performance at t =2.889 and p = 0.04. The resulting fit indices of the SEM indicated a good fit indices: RMSEA = 0.029, GFI = 0.914, CFI = 0.983, TLI = 0.981, NFI = 0.933 and Chi-square/df = 1.323.

ABSTRAK

Pembangunan bangunan hijau sebagai satu rangsangan ke arah kelestarian telah menimbulkan keperluan terhadap satu pendekatan baru dalam operasi dan penyenggaraan bangunan, terutamanya dalam aspek pembersihan. Pembersihan ternyata merupakan satu daripada komponen yang perlu diberi perhatian bagi memastikan keadaan yang baik dan prestasi keseluruhan sesuatu bangunan oleh kerana ia merupakan bahagian utama dalam operasi bangunan dan kos penyenggaraan. Walau bagaimanapun, pembersihan konvensional menimbulkan pelbagai masalah kesihatan dan alam sekitar yang hanya dapat diatasi dengan pembersihan hijau. Oleh itu, bangunan hijau memerlukan perkhidmatan pembersihan hijau untuk mendapatkan faedah dari sudut ekonomi, sosial dan alam sekitar. Walaupun berpotensi memberikan faedah, pembersihan hijau didapati tidak lestari di Malaysia kerana terdapat masalah dalam pelaksanaannya. Masalah ini termasuk tahap kesedaran yang rendah, tahap latihan dan pendidikan yang rendah, kekurangan perkara-perkara yang diperlukan dalam pembersihan hijau, komunikasi tidak efektif, dan bekalan produk dan material hijau yang terhad. Faktor-faktor tersebut menyumbang kepada kegagalan dalam pelaksanaan projek pembersihan hijau. Oleh itu, kajian ini bertujuan untuk mengkaji hubungan antara faktor kejayaan kritikal yang diperlukan untuk melaksanakan perkhidmatan pembersihan hijau dan prestasi organisasi. Objektif kajian ini adalah: (a) untuk mengenal pasti faktor kejayaan kritikal (FKK) yang diperlukan untuk melaksanakan perkhidmatan pembersihan hijau yang lestari; (b) untuk mengenal pasti faktor prestasi pembersihan hijau lestari dalam organisasi; dan (c) untuk membangunkan model persamaan struktur faktor kejayaan kritikal untuk melaksanakan perkhidmatan pembersihan hijau lestari dan prestasi organisasi. Metodologi penyelidikan yang digunakan untuk mencapai objektif kajian adalah tinjauan soal selidik. Data telah dianalisis menggunakan Analisis Faktor Penerokaan, Analisis Faktor Pengesahan (CFA) dan Permodelan Persamaan Struktur (SEM) menggunakan Pakej Statistik untuk Sains Sosial (SPSS) dan Analisis Momen Struktur (AMOS). Berdasarkan kajian literatur, lima kategori faktor kejayaan kritikal untuk pembersihan hijau dengan 23 indikator telah dikenal pasti. Di samping itu, tiga elemen prestasi pembersihan hijau lestari juga dikenal pasti dengan 15 indikator melalui kajian literatur. Pada kadar kritikal (t) ± di atas 1.96, menandakan laluan penting secara statistic ($P<0.05$), hasil kajian penentu utama perlaksanaan pembersihan hijau di Malaysia adalah sumber manusia dan fizikal yang mempunyai korelasi tinggi (β=0.805, 0.803) dan penting secara statistik (t =5.351, $p \leq 0.05$; t = 4.085, $p \leq 0.05$) dengan faktor kejayaan kritikal. Kajian ini juga menunjukkan bahawa prestasi persekitaran dan sosial adalah berkait dengan signifikan secara statistik dengan prestasi organisasi pada $p < 0.05$ dan puncak kadar kritikal > ±1.96. Selain itu, hasil penemuan menunjukkan bahawa faktor kejayaan kritikal adalah berkait dan signifikan secara statistik terhadap prestasi organisasi pada t =2.889 and p = 0.04. Indeks fit yang terhasil bagi SEM menunjukkan suatu indeks fit yang baik: RMSEA = 0.029, GFI = 0.914, CFI = 0.983, TLI = 0.981, NFI = 0.933 and Chi-square/df = 1.323.

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LIST OF ABBREVIATIONS

BREEAM	-	Building Research Establishment Environmental Assessment Method
CB-SEM	-	Covariance Based- Structural Equation Modelling
CIMS	-	Cleaning Industry Management System
CIRI	-	Cleaning Industry Research Institute
CRI	-	The Carpet Rug Institute
CT	-	Contingency Theory
ECP	-	Environmental Choice Program
EPA	-	Environmental Protection Agency
GBI	-	Green Building Index
IAQ	-	Indoor Air Quality
IEQ	-	Indoor Environmental Quality
ISSA	-	International Sanitary Supply Association
KBV	-	Knowledge Based View
LEED	-	Leadership in Energy and Environmental Design
NRBV	-	Natural Resource Based View
OSHA	-	Occupational Safety and Health Administration
RBV	-	Resource Based View
VOC	-	Volatile Organic Compounds

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CHAPTER 1

INTRODUCTION

1.1 Introduction

The purpose of this study is to identify the critical success factors for sustainable green cleaning services implementation. Many issues and challenges are encountered in the green cleaning services implementation despite its great potential and benefits. The study is imperative to provide essential solutions for the successful and sustainable of green cleaning services implementation in Malaysia.

This chapter begins with the background of the study and the research problems. The research problem is a culmination of real issues and problems gathered from the industry practitioners and review of past researches related to green cleaning services. The next section presents three research objectives that are expected to provide the requisite solutions. The following sections provide brief explanations on the research methodology, scope of study, significant of study and outline of the thesis.

1.2 Background of the Study

Organisations in the twenty-first century are faced with globalisation, demographical changes, technological innovation, and high customer expectations that consistently redesign business setting. To compete effectively within perplexing and vibrant knowledge-based economy, firms need strategies to achieve certain level of sustainability. Integration of sustainability in companies' strategy aids the attainment of business sustainability objectives especially in the presence of progressively challenging global problems such as climate change and environmental issues (Ehnert, 2009).

Sustainable developement which has been defined as meeting the needs of the present without trading off the capacity of future ages to meet their own needs (WCED, 1987) has therefore developed in noteworthiness crosswise over numerous organisations. Firms are increasingly worried about the effect of their business activities on environmental, social and economic sustainability, and additionally the effect of sustainability issues on their business (Adams and Frost, 2008). According to Faris, Gilbert, LeBlanc, Bollou and Heitger (2013) sustainability has come to be a strategic basic for practically all businesses in the start times of this century and has progressed into a focal market influencing long financial viability and accomplishment. In this progression, some have streamlined and characterised sustainability to three essential parts regularly alluded to as the "triple-bottom-line": economic, social, and environmental components (Shah, 2007; Dixon, 2014). At the organisation level, these three dimensions are by and large acknowledged as descriptive of a firm's performance in sustainability. This is because performance is the best way to measure the best strategic to create value to the organisation. Therefore, the notion of sustainability has turned out to be more vital for businesses and has pervaded various number of decisions management in these organisations need to consider. Hence, the global warming issue has propelled organisations to go green in their business operations including changing over from conventional buildings to green buildings.

The investment on green buildings is often motivated by the aim to lessen energy consumption. Be that as it may, many tend to neglect the significance of the operations and maintenance aspect of the building, especially the aspect of cleaning for health without harming the environment popular known as green cleaning. Maintenance and management of the building comprises of considerable aspects including cleaning. As noted by Kamaruzzaman, Myeda and Pitt (2013), cleaning ranked as the most functional and essential of the building facility maintenance within the maintenance and management aspect in contrast with other maintenance operations of a building like lighting, mechanical & electrical services, plumbing inclusive of sanitary services, air-conditioning services and so on .While cleaning service is a primary factor to the maintenance and management aspect, improper and ineffective cleaning can constitute a problem to the environment, society and the economy necessitating the need for green cleaning in building maintenance. These three areeas are the essential performance factors in organisation. Hence, conventional cleaning services can poses threats to organisation performance and sustainable green cleaning in building maintenance can improves organisation performance.

In buttressing the ineffective and unsustainability of conventional cleaning service, its practice has been blamed as one of the major contributors to poor indoor air quality, environmental pollution and deterioration of the eco-system (Shendell, Barnett, and Boese, 2004; Wolkoff *et al.*, 1998; Culver, Marian, Klebenon, Musnikow, and Sutherland. 2002; Nazaroff and Weschler 2004; Brown, Grevatt, and Merse, 2012). This poor indoor air quality produces several health problems such as asthma, liver failure, congenital disabilities, reproductive disorders and brain damage. Other poor indoor air quality effects of conventional cleaning are eye, nose, throat, and skin irritation, burns, coughing, fatigue, dizziness, headaches, chest, pain, vomiting, cramps and diarrhoea (Flyvholm, 1993; Culver *et al.*, 2002; Nazaroff and Weschler, 2004; Zock, 2005; Delclos *et al.*, 2007; Arif, Delclos, and Serra, 2009; Bello, Quinn, Perry, and Milton, 2009, 2010; Arif and Delclos, 2012; Elliott, 2012; Gerster, Vernez, Wild, and Hopf, 2014). Indoor air quality is a weighty factor in worker health and efficiency.

According to Suleiman and Svendsen (2015), the cleaning service industry is a first end-user of chemicals, and it is assessed that an average cleaning employee uses

roughly 110 kg of harmful chemicals yearly. For example, the illnesses evidently related to cleaning chemical neurotoxin contact include headaches, migraines, multiple sclerosis, premature births, asthma, obesity, diabetes, reduced fertility, Parkinson's disease and some types of cancer (Elliott, 2012). The U.S. EPA evaluates that $20-$50 billion is lost every year because of diminished worker productivity. In 2000, the estimated loss of work owing to the four most common respiratory ailments (common cold, pneumonia, influenza, and bronchitis) was 176 million work days and 121 million days of considerably decreased activity (Pitts and Mychele, 2007). As underscored by Loftness *et al.,* (2005), the enhancement in indoor air quality in buildings can lessen the symptoms of sick building syndrome, flu, asthma, sick building syndrome, allergies, respiratory infections, headaches, and colds by 41.5% on average.

From the environmental perspective, the industry consumed more than 2.7 teragrams of cleaning chemicals and over 2.0 teragrams of janitorial papers annually in the US alone from scarce and unrenewable resources through its conventional practice in addition to 0.5 teragrams of janitorial equipment that are generated as waste. The overall effects on the environment regarding pollution and deterioration of the ecosystem are significant (Ashkin, 2007; Ashkin, 2009; Ashkin and Holly, 2008; Corbett-Shramo, Wagner and Esbensen, 2011). According to Elliott (2012), there are some reports of streams contaminated with cleaning chemical where fish no longer can become male, and the population quickly change to female, rendering the species rapidly extinct. Although Cleaning is not the leading industry liable for human health and environmental problems, being an essential activity that cut across all sectors and workplaces, it presents serious negative human health and environmental impacts as reported in the stated facts above.

The hazards created by the conventional cleaning practices are caused principally as a result of the toxic cleaning products, unsustainable cleaning equipment and inappropriate techniques that are commonly employed in performing cleaning operations. Chemicals of concern in conventional cleaning are those that contain ingredients such as carcinogens, mutagens, reproductive toxins, heavy metals (lead, chromium), 2-butoxyethanol, phthalates, alkylphenol ethoxylates resulting into

problems such as respiratory, reproductive, neurological, hormone disruptor, water pollution, smog and damage to the ozone layer (Grandjean and Landrigan, 2006; Smith and Steinmaus, 2009; Nazaroff e*t al.,* 2006; Jaakkola and Knight, 2008; Main *et al.,* 2006). The major problem with cleaning equipment is the issue of equipment efficiency and ergonomic concerning water and energy consumption, noise pollution and risk of injury.

As reported by Goggins (2006), the cleaning industry has begun to pay serious attention to ergonomics and safety owing to the relatively alarming rate of occupational injury among its custodial staff. This has caused a rising demand for industry-specific safety and ergonomics information, and also cleaning tools with ergonomic features. Statistics from Washington State in 1997 indicated that 289 cleaning personnel suffered from cleaning chemical hazard injuries (Barron, Berg and Bookman, 1999). In Barron's 2004 report for the City of Seattle, the aggregate cost per injury was USD 1,359, including medical and lost time costs in which the cleaning industry engaged approximately 2.8 million potentially exposed workers (Barron, 2004; US EPA, 2017). According to Elliott (2012), janitors reportedly experienced job-related injuries due to chemical exposure to cleaning products at the rate of 6% annually and the injury issue so serious that a California jury awarded a custodian USD6.7 million for permanent brain damage caused by a particular chemical used for degreasing.

The emergent awareness of the adverse hazards linked with conventional cleaning practices has become a source of concern amongst educators, public health practitioners, consumers and environmentalists (Senier, Mayer, Brown, and Morello-Frosch, 2007; Goldin, 2007; Williamson, 2009; Bello *et al.,* 2009; Markkanen *et al.,* 2009; Quan *et al,* 2011; Chenven & Copeland, 2013; Siqueira and Roche, 2013). Apart from the substantial aggregate of energy, electricity (night time cleaning), raw materials and water that goes into keeping a building clean, its deficiencies to ensure effective cleaning that protects the health and environmental sustainability are persuasive reasons to redefine cleaning practice.

Presently, there is a rising crusade for employers to adopt environmentally friendly cleaning products for their cleaning staff to lessen worker contact to harsh and possibly unsafe chemicals (Lee, Nam, Harrison, and Hong, 2014). In this regards Occupational Safety and Health Administration [OSHA] and National Institute for Occupational Safety and Health [NIOSH], (2012) approve that occupational exposures and health risks from cleaning products should be reduced by selecting the least hazardous products, utilising modern cleaning equipment that minimises chemical use, maintaining and operating proper ventilation systems, complying with safe work practices and using adequate personal protective equipment (PPE). Markkanen *et al.*, (2009) reported that the core approach to decreasing custodial exposures to conventional cleaning hazards is integrating the selection of green cleaning products with effective cleaning practices.

Therefore, there is need to transform and enhance cleaning services into safer and sustainable practices which can promote water conservation, energy efficiency, waste reduction and indoor air quality in response to this strong momentum for a change. This mounting concern necessitated the need to embrace green cleaning initiatives (Corbett-Shramo *et al.,* 2011; Quan *et al.,* 2011). Green cleaning, according to US Executive Order 13101 (The president, 1998), is cleaning that protects health without harming the environment. The Federal Order defined green products as product and services that have the least impact on the health and the environment when compared with competitive products and services that serve the same purpose. It entails using cleaning methods with environmentally friendly (less toxic, more biodegradable) ingredients and chemical to preserve human and environmental health and quality while ensuring that the necessary level of the unwanted and potentially harmful contaminants are removed as a result of effective cleaning. The cost benefits of green cleaning, in the long run, show increases return on investment (CT Foundation for Environmentally Safe Schools, 2008; Ashkin and Holly, 2008).

Other benefits of green cleaning initiatives according to Culver (2008); Corbett-Shramo *et al.,*(2011); Heninger (2011); Brown *et al.*, (2012); Conrad and Pate (2009) and BETCO (2008) are: reduce environmental and health impacts, reduce absenteeism and associated healthcare costs, reduces liability, legal costs and

insurance, improve indoor air quality, ensures healthier facility, improves tenant satisfaction, improve grades and attendance in education, enhance the quality of life and moral, improve employee retention. As noted by Espinoza, Geiger and Everson (2010), green cleaning program delivers several intangible health and environmental benefits such as decreased usage and discharge of harmful chemicals, reduced transportation energy costs and greenhouse gas emissions. The above is achieved through the particular use of concentrates, hazardous materials disposal avoidance, improved indoor air quality culminating in reduced absenteeism and higher productivity, lessened downstream aquatic toxicity and decrease of occupational injuries and employee's compensation claim field. Because of these sustainable green performance benefits, green cleaning is receiving significant attention and recognition in the Facility Management and Cleaning Industries. It has also become one of the key components for certification in US Green Building Council's LEED Rating System for existing building and Cleaning Industry Management System (CIMS). Users organisation are also beginning to incorporating green cleaning into their sustainability objectives to reduce their carbon footprint, enhance their overall performance and quality of facilities.

As noted above, green cleaning should ideally be able to address the problems associated with conventional cleaning practices significantly, but due to some inhibiting factors, the level of success is not completely effective. The adoption and implementation of green cleaning are already embraced and practised in the developed world especially in schools and healthcare and has witnessed some level of success, its application in some other organisations encountered some implementation difficulties (Canaan *et al.,* 2010; Xu, 2012). However, green cleaning services is not sustainable in malaysia because of failure factors. These are resources deficiencies. Hence the need to investigate into resource –base critical success factors (CSFs) for sustainable green cleaning services and organisation performance. From strategic management point according to Dickinson, Ferguson and Sircar (1984), these CSFs are defined as events, conditions, circumstances or activities that demand special consideration because of their importance. With particular reference to the resource based view (RBV), this study defines CSF as 'internal resources or factors (characteristics, conditions or competencies) that need to be properly sustained,

maintained or managed due to significant contribution to company success. Resources form the basis of firm strategies and are critical in the implementation of those strategies as well (Hitt, Bierman, Shimizu, and Kochhar, 2001). Therefore, firm resources and strategy seem to interact to produce positive returns. Firms employ both tangible resources and intangible resources in the development and implementation of strategy. This definition is suitable for application to sustainable green cleaning services (SGCS) and performance in relation to their long-term survival and success in the industry.

Therefore, it is important to establish a green cleaning programme to ensure that the buildings are cleaned in a green way. The intergaration of green cleaning strategies will help to generate sustainable organisation performance in environmental, social and economic dimensions. It is against this background that this study is necessitated to examine the relationship between critical success factors for sustainable green cleaning services and organisation performance in Malaysia.

1.3 Statement of Research Problem

Regardless how noteworthy green a building may have been in its design, it can remain so if it is operated responsibly and maintained appropriately (Guide Whole Building Design, 2013). Operations and maintenance is a regular activity in all types of building to make sure the building is maintained and operated correctly. Correspondingly with conventional building, green building involves maintenance to safeguard that building and facilities are in good condition. There is the necessity for sustainable maintenance for green building. Sustainable maintenance as defined by Khamidi, Lateef and Idrus (2010) is a maintenance system that meets the value system of the current users without trading off the capacity of meeting the value system of the future users. Maintenance always influences the quality of the environment by decreasing waste, contaminant and other resources; impact overall financial performance by lessening energy and water consumption and costs; and affects

people's comfort, health, safety and productivity productivity (Khamidi *et al.,* 2010; Lateef, 2009).

Contrasted with conventional buildings, green buildings are expected to diminish energy consumption, decrease resources use and offer financial benefits in operational cost even though the upfront costs are higher (Anuar, NorKalsum, Zulkiflee and Mohd Yazid, 2012). Regrettably, some of the green buildings are not performing as what they should particularly as far as energy consumption. Green buildings utilise high energy than anticipated (Sakina, Fassman, Wilkinson, & Adi Irfan, 2013; Zmeureanu *et al.,* 2009). This issues prompt high energy cost and straightforwardly impact the operations and maintenance cost. The operations and maintenance problems are regularly caused by design inadequacies and the intricacy of technologies in green buildings (Fatimah, Zainal and Mohammad Ashraf, 2011; Leaman, Thomas and Vandenberg, 2007). The construction industry these days tends to concentrate excessively on fabulous new construction and as yet leaving the maintenance aspect of the design and construction process (Sustainable Hospital Buildings., 2007). As opined by Lam (2007), works on green building operations and maintenance are very scanty in contrast with the several studies on green design and construction. While bulk green buildings may have a good green design, yet what about their operations and maintenance?

The emphasis of green buildings is on enhancing the efficiency of energy, water and materials used; and to lessen the general effect it has on human health and the environment all over its lifecycle (Green Building Index). "All over its lifecycle" according to Zainol (2016) infer that the facilities and buildings must be anticipated to be a green building right from the design stage till its removal. As observed by Myeda, (2011) and Natasha (2008), how would the management or maintenance teams be able to operate and maintain the buildings in a greenway when there are vague operations, maintenance guideline and resource deficiencies for green buildings in Malaysia?

In spite of the various works of literature and studies on green building, there is still a gap of how green building are managed, maintained and operated. There are

different types of maintenance services during operations and maintenance stage of building, and this involves cleaning. However, according to Nik Mat (2011), cleaning has been categorised as a first significant building maintenance services during operations and maintenance stage in contrast to other building maintenance services such as air-conditioning; sanitary/plumbing; mechanical, electrical; and lighting. Hence, it is essential to conduct a study of the cleaning facet of green buildings as it represents a leading portion of facilities management expenditure (Klungseth, 2013). Atifi (2012) also noted the tendency of people to overlook the maintenance aspect of the building particularly cleaning since lessening energy use is becoming the foremost priority concern in green building. However, decreasing energy will not make those buildings "green" if volatile organic cleaning chemical and processes are as yet being used during cleaning operation as these may also contribute to indoor pollution. (Young , 2010; Nazaroff, 2004; Rumchev, 2004).

Significant studies had also buttressed the need to embrace sustainable green cleaning services owing to the grave consequences of conventional cleaning practices on human health and the environment (Bello *et al.,* 2009; Markkanen *et al.,* 2009; Quan *et al.,* 2011; Chenven and Copeland, 2013). As a result, businesses are embracing environmental, social, and economic values within their areas to promote the cause of sustainability within their organisation (Liobikienė and Mandravickaitė, 2011) and policy makers (Singh, Murty, Gupta and Dikshit, 2009). This has led to the formulation of legislation and development of green cleaning guidelines and specification in the developed nations.

Despite the successful adoption and implementation of green cleaning in some organisations in developed countries, certain constraints inhibit its successful implementation and sustainability in some other institutions (Xu, 2012). This was also emphasised by Petrini and Pozzebon (2009) who asserted that although there is an explosion of concern and interest about green practices among organisations, their sustainable and effective implementation for faces serious problems. The problems responsible for sustainable green cleaning services' poor implementation includes: inadequate awareness, training and education (Senier *et al.,* 2007; Canaan *et al.,* 2010; Simcox, Wakai, Welsh, Westinghouse and Morse, 2012; Wakai, 2013), voluntary green

cleaning laws requirements and lack of standardised adoption policy (Kalinoski, 2009; Canaan *et al.,* 2010; Atifi, 2012; Arnold and Beardsley, 2015; Zainol, 2016), janitorial resistance (Xu, 2012; Meek, 2013), ineffective communication (Senier *et al.,* 2007; Simcox *et al.,* 2012), budgetary constraints/upfront costs (Espinoza *et al.,* 2010; Simcox *et al.,* 2012; Arnold and Beardsley, 2015; Chalupka, 2015), limited green cleaning products at the local market (Al Madani, 2012; Bhalerao and Singh, 2011; Aktas and Ozorhon, 2015; Alia, 2017)), inadequate manpower (Arnold and Beardsley, 2015).

The custodian of the piloted schools in Senier *et al.,* (2007) identified lack of equipment, insufficient training programs and participation in decision-making processes as significant issues in transitioning to green cleaners. A study by Xu (2012) reported janitorial resistance as the first obstacle to green cleaning implementation and sustainability. Other issues in his work are the adverse impact of greenwashing on health and sustainability of the program, lack of funding especially during the fiscal crisis in public schools, and training issues with new equipment. Another study by Simcox *et al.,* (2012) noted the lack of cleaning effectiveness with some green cleaners, lack of participatory decision-making for a cleaner solution, lack of quality training, and expensive green cleaning products as obstacles to transitioning to green cleaning.

The Missouri Department of Elementary and Secondary Education (MDESE) released green cleaning guidelines and specification to Missouri public schools with the expectations that public schools would use and implement it to advance sustainability practices and enhance educational facilities environment although the document is strongly suggested and not lawfully required by regulation. Canaan *et al.,* (2010) however established the issues regarding the poor implementation of the report to the problem of awareness and proper education. The study, therefore recommends increasing awareness and knowledge of green cleaning guidelines and specification, provision of incentives or rewards programs to honour districts who exhibit a pre-set level of green cleaning implementation, a bi-annual assessment to document the application and opinions of superintendents about green cleaning and use for schools and to develop a standardised policy for the district to implement. Arnold and

Beardsley (2015) study also found out that voluntary green cleaning laws without training and reporting requirements to be less efficient in green cleaning implementation as schools with mandatory legislation with requirements for training and reporting were reported to be more active in green cleaning implementation in school's districts. Quan *et al.,* (2011) identified the problems for implementing green cleaning common to the five cases studied to janitorial resistance and low availability of green products. In spite of the proofs of green cleaning implemented in schools and hospitals, hotels, parks, its implementation have continued to face challenges that affect its sustainability (Xu, 2012).

In respect of the above, Table1.1 below summarises the issues as the dominant forces which inhibit the effectiveness of sustainable green cleaning projects' implementation. Succinctly, they are the factors contributing to the failure of green cleaning project.

Table 1.1: The Issues Confronting Green Cleaning Stakeholders.

S/No	Issues	References
1.	Inadequate green cleaning awareness, training and education.	Senier *et al.,* (2007); Asset Skills (2010); Canaan *et al.,*(2010); Simcox *et al.,* (2012); Atifi (2012); Wakai (2013); Aman (2014); Migdalia, (2015); Chalupka (2015); Ramli *et al.*, (2018).
2.	Legislation requirements/Standardized policy issues.	Kalinoski (2009); Canaan *et al.,*(2010) Atifi (2012); Arnold and Beardsley (2015); Zainol (2016). Alia (2017); Ramli *et al.*, (2018).
3.	Janitorial resistance.	Xu (2012); Simcox *et al.,* (2012); Meek, (2013); Migdalia (2015).
4.	Ineffective communication.	Senier *et al.,* (2007); Simcox *et al.,* (2012); Chalupka (2015).
5.	Financial constraints/perceived upfront costs.	Markkanen, *et al.,* (2009); Simcox *et al.,* (2012); Xu, (2012); Arnold and Beardsley (2015); Migdalia (2015); Chalupka (2015). Alia (2017); Ramli *et al.*, (2018).
6.	Limited green cleaning products.	Bhalerao and Singh (2011); Al-Madani, (2012); Aktas and Ozorhon, (2015). Alia (2017); Ramli *et al.*, (2018)
7.	Inadequate Manpower.	Xu (2012); Atifi (2012); Arnold and Beardsley (2015).

The above issues of green cleaning services implementation is presented in Figure 1.1 below.

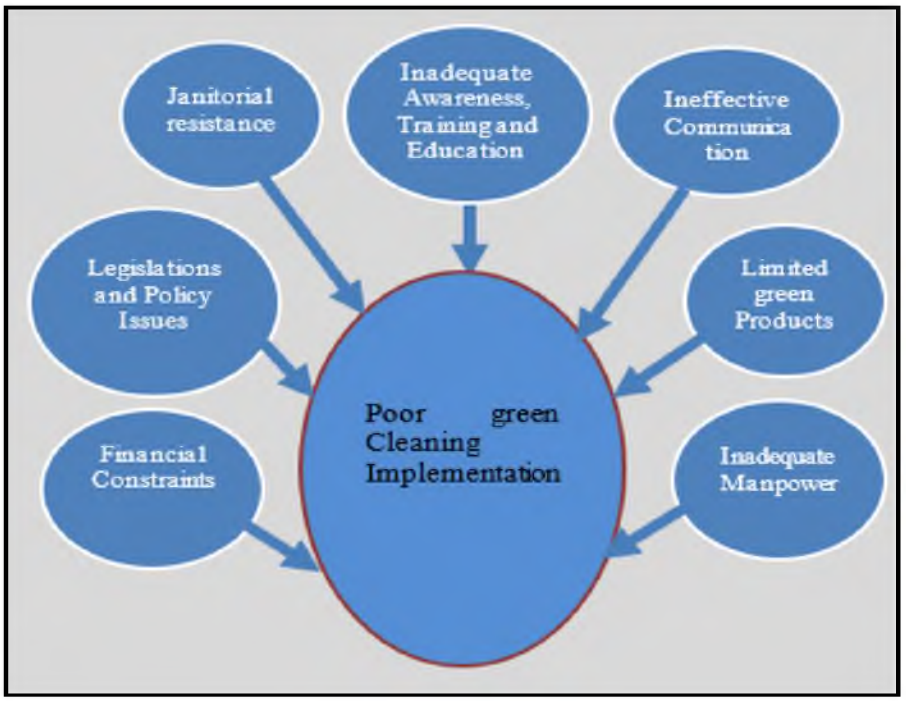

Figure 1.1: Factors affecting sustainable green cleaning services

Sources: (Canaan *et al.,*2010; Xu, 2012; Simcox *et al.,* 2012; Atifi, 2012; Arnold and Beardsley , 2015; Chalupka , 2015; Zainol 2016; Alia , 2017; Ramli *et al*., 2018).

The above researchers has pointed out the factors which had prevented sustainable green cleaning services implementation in buildings. According to Ramli *et al.,* (2018), the critical failure factors that hinders green cleaning services implementation in Malaysian hospitals are lack of green cleaning components and requirements, lack of knowledge and skills, costs and finanncial problems, products inavaialability, and lack of awareness in that order. For a program to be successful as observed by Toor and Ogunlana (2010), it is important first to ascertain the failure factors. Based on this assumption, the number of failure factors which impede sustainable green cleaning services implementation has been determined in Table 1.1 and Figure 1.1. Nevertheless, the significance of these factors has yet to be practically explored in the Malaysian context. In Malaysia, green cleaning services is not sustainable in due to the above failure factors that contributes to poor green cleaning services implementation and performance. Therefore, the necessity to have a best practice model framework as reference is essential. Regrettably, no best practice model framework have been found to be sufficient as much uncertainty still exists on the sustainable performance measurement components.

An extensive review literature on green cleaning presently shows a deficiency in the study on green cleaning implementation. For example, a study by Markkanen *et al.,* (2009) created a conceptual framework to show issues around green cleaning in the health sector in three sections namely: external and internal factors affecting healthcare cleaning, healthcare hygiene system and the interaction of these two components influenced the third group which is the multiple healthcare outcomes. This suggests that smooth transitioning to efficient and sustainable green cleaning implementation is dependent on strong commitment and support from both the internal and external stakeholders. However, this work does not empirically examine the correlation between these factors and their influence on green cleaning implementation and multiple healthcare outcomes.

Another study by US EPA (1998; 2000) described environmental procurement programmes in the City of Santa Monica's environmental purchasing and incorporating environmentally friendly benign products at Yellowstone and Grand Teton National Parks and ascribed the success of the programmes to top management support, pilot study, teamwork training, evaluation and planning. These work is also descriptive and would need to be complemented with a quantitative study to ascertain the critical success factors and their impacts on green cleaning implementation and performance. In other studies, the importance of stakeholder's coalition was reported to be crucial in transiting to green cleaners, and custodial staff were said to have a voice in switching to green cleaning (Senier *et al.,* 2007; Laura and Danielle, 2013; Simcox *et al.,* 2012).

However, it appears that no study has empirically investigated the relationship between critical success factors for sustainable green cleaning and performance which is the focus of the research. Because of this, there is no strong construct for green cleaning implementation (Please see Table 1.2 below).

Table 1.2: Sample of Previous Literatures on green cleaning

S/N	Author(S)	Year	Previous Studies
1.	US EPA	1998	Environmental purchasing program and incorporating benign janitorial products
2.	US EPA	2000	Cleaning National Parks: Using Environmentally Preferable Janitorial Products at Yellowstone and Grand Teton National
3.	Senier *et al.,*	2007	Coalition success story for switching to benign cleaning products
4.	Markkanen *et al.*	2009	Green cleaning in healthcare
5.	Canaan *et al.,*	2010	Public School Districts' Adherence To Guidelines For Environmentally Sound Practices.
6.	Quan *et al.,*	2011	Green Cleaning in Healthcare: Current Practices and Questions for Future Research. Health Care Collaborative Paper Series. University of Illinois, Chicago School of P Public Health
7.	Balek, B	2012	State government promoting green cleaning in schools
8.	Kapula, A	2012	Comparative study on the assessment of the Lifecycle of conventional and certified green cleaning products
9	Xu, N	2012	Obstacles to green cleaning implementation
10.	Chalupka, A.C	2015	Green Cleaning Technology Adoption: An Historical Analysis
11.	Zainol, N.N	2016	A Structural Model Of Green Cleaning Components And Requirements For Green Buildings

Though green cleaning practices are gradually being implemented in the developed countries, it is still not widely practised. Currently in Malaysia, there is a limited number of GBI certified non-residential existing buildings (Jagarajana, Asmonib, Leeb and Jaafara, 2015), unpopular use of green products.(Alia, 2017), green cleaning low awareness, shortage of green cleaning service providers, lack of certification body and green cleaning guidelines and specification (Atifi, 2012, Zainol, 2015; 2016). According to Ramli *et al.,* (2018) , five major factors that hinder the green cleaning implementation for Malaysian hospital buidling are absence of green cleaning components and requirement, lack of knowledge and skill, cost and financial problems, availability of products and lack of awareness in that order. These vital resources for effective implementation of green cleaning strategy in Malaysia are inadequate. Hence, green cleaning service is not sustainable in Malaysia. Green cleaning needs to be implemented as a standard practice in green building operations and maintenance. Various researchers and related parties have acknowledged the significance of green cleaning in achieving green building goals and this directly influence the principles of sustainable development namely environment, economic

and social. In Malaysia, green buildings are limited to reducing energy consumption. Reducing energy will not make those buildings "green" if they still using highly toxic cleaning products (Young, 2010).

Therefore, green buildings need green cleaning. This is because it is a generic activity that cut across all workplaces and sectors be it private or public; and has the potential to contribute to economic, social and environmental sustainability. As important its implementation is not sustainable because of lack of strategic resources. For example, there is no specific standard or regulations set for green cleaning in Malaysia; there are awareness, knowledge and skills problems, costs and financial issues, and product availability (Atifi, 2012; Zainol 2016; Alia, 2017; Ramli *et al.*, 2018). These are strategic resources in the forms of human, financial, physical, social and organisation resources. Besides, from all perspective that green cleaning has been looked such as design, construction, non has looked at green cleaning from the standpoint of organisation resources. This study, therefore, examined green cleaning from the organisation perspective. Careful examination of past studies revealed lack or inadequate research on the correlation between resources - based critical success factors for sustainable green cleaning services and organisation performance. It is the opinion of this study that investigations into the resources -based CSF for sustainable GC services will generate a working environment and full acceptance of green cleaning practices to all stakeholders for sustainable green performance.

1.4 Research Questions

This study seeks to answer the following research questions:

i. What are the critical success factors required for sustainable green cleaning services implementation in Malaysia?
ii. What are the factors that constitutes sustainable green performance of organisation?

iii. What is the relationship between sustainable green cleaning success factors and organisational performance?

1.5 Aim of the Study

The aim of this study to determine the relationship between the critical success factors for sustainable green cleaning services and organisational performance.

1.6 Objectives of the Study

i. To identify the critical success factors required to incorporate sustainable green cleaning services in Malaysia;
ii. To to identify the sustainable green performance factors of organisation;
iii. To develop a structural equation model of critical success factors for sustainable green cleaning services and organisational performance.

1.7 Scope of the Study

Like in other studies, this particular study has it own limitations both in scope and methodology. To achieve the objectives of this research within the limited time,the study focuses on only the following features discussed below:

First of all, this study focuses on crtical success factors for sustainable green cleaning services and performance.in commercial buildings. This is because according to Reed and Wilkinson (2005) the major source for high level of greenhouse gas

emissions in buildings is mainly generated from non- residential existing buildings. Therefore, it is pertinent to focus on commercial buildings in order to achieve significant reductions of global energy consumption and greenhouse gas emissions.

The research seek to explore the relationship between CSF for sustainable green cleaning services and organisational performance. The focus groups of stakeholders were narrowed to clients, contractors and consultants. This group of stakeholders were also adopted in the works of Mat (2012) and Atamamen, Mohammed and Atamamen (2018). Therefore, the scope of the study is limited to exploration from broad based expert opinions of respondents of clients, contractors and consultants particularly those situated in to Kuala Lumpur, Selangor, Melaka and Johor Bahru of peninsular Malaysia. This is because the majority of green buildings in Malaysia are concentrated in these areas. Apart from the fact that two of these study areas (Kuala Lumpur and Selangor) are capital cities of Malaysia, the majority of the commercial activities in Malaysia are concentrated there. Also, the majority of the Malaysia Association Cleaning Contractors members (MACC), Malaysian Facilities Management Association members (MAFM) and clients who are respondents of this study are also situated in these four study areas. (Please refer to table 4.4 showing the statistics of registered members of MACC across Malaysia states).

Therefore, this study aim to seek the organisation opinions of commercial buildings owners, consultants and cleaning contractors and to validate the identified CSF for sustainable green cleaning services and performance in order to achieve significant reductions of global energy consumption and greenhouse gas emissions.

1.8 Significance of the Study

The significance of the study is very much linked to the importance of the research, and it's pertinent to the theory, practice and future research. The investigation has the following effects:

i. The research model can assist firms to identify their organisations' strengths from available resources in order to develop sustainable green cleaning services and organisation.

ii. The findings from this study contribute to the body of knowledge in the areas of sustainable green cleaning services, organisation performance, and the RBV paradigm. This research contributes to providing understanding on CSFs for sustainable green cleaning services and organisation performance. Therfore, it fills the gap pertaining to how resources- based CSFs are useful in effectively implementing sustainable green cleaning services and achieving better organisation performance.

iii. This study is useful to facilities managers and cleaning practitioners as it should enhance their knowledge, skills and experience about resource-based CSFs for sustainable green cleaning services implementation and organisation performance. This could also assist them to be positioned appropriately to perform their tasks successfully in incorporating sustainable green cleaning services implementation into management practices otherwise they might risk their relevance in the marketplace;

iv. Given the environmental, economic and the beneficial social outcomes of this research, stakeholders such as the executives, government and custodial staff will gain a better understanding on the criticality of their roles, support and commitment to a greener cleaning practices.

Therefore, the study thus provides the strategies in which sustainble green cleaning services can be successfully implemented to preserve human health and the environment. Besides, the study also fills the gap in the literature regarding compilation of Resource –based CSF for green cleaning services integration as well as understanding the association between success factors and organisation performance. Likewise, the structural relationship model for CSF for green cleaning implementation and performance present a broad structural cause and effect relationship between the various success factors and performance which in turn aids to ease cleaning contractors, facilities managers and clients in deciding the priority, direction and implementation strategies for effective high-performance green cleaning project implementation.

1.9 Structure of Thesis

In this section, a succinct review of the structure of the thesis is presented. First, Chapter One introduces the issues associated with the topic under study, with a brief description of the problems' statement and significance of the study. The following Chapter Two provides a lucid review of the literature. It entails an in-depth review the relevant literature related to the constructs that form the proposed relationship between GC critical success factors and organisation performance model. These include GC CSFs such as custodian participation, training, communication, fund availability, the budget for GC, maintaining a budget for GC, GC Champion, GC teams, knowledgeable and environmentally aware vendor amongst others. The performance indicators include economic, environmental and social.

Drawing on the literature in Chapter Two, Chapter Three discusses the theoretical and conceptual framework of relationship model of GC CSFs and organisation performance proposed in this thesis. It presents the nine hypotheses to be tested and analysed. H1, H2, H3, H4, and H5 relate to each type of resource: financial, physical, human, social and organisation resources required to implement green cleaning in Malaysia successfully. H6, H7, H8 represents the influence of CSF on economic, environmental and social performance. The last hypothesis H9 represent the relationship between GC CSFs and organisational performance (OP). In Chapter Four, the methodology utilised to examine the hypothesised relationship of GC CSFs and performance model empirically established in Chapter Three is specified. This methodology encompasses an overview of the design and rationalises the adoption of quantitative methods. It also discusses the scale items chosen to quantify the underlying constructs and defines the instrument used to collect the data. It further explains the pilot and full survey, substantiates the techniques employed to analyse the returned and usable data; deliberates the reliability and validity of the constructs, and finally presents the assumptions and the relevant concepts of SEM using AMOS.

Chapter Five presents the data analysis for the study using the techniques justified in Chapter Four. This includes results related to the sample profile and testing

the underlying hypotheses using the two-stage approach of structural equation modelling. The aim in the first stage was to have valid and reliable constructs to test the nine hypotheses presented in Chapter Three that represent the relationships among them. Chapter six presents the discussion of data analysed in chapter five drawn from testing the nine hypotheses, aiming to answer the three research questions identified in Chapter One. Chapter seven highlighted the knowledge contribution and the industrial implications which were drawn from the results reported in Chapter Five and Six. The recommendations for further research are also discussed, and finally, the crucial conclusions proceeding from the research findings are presented.

REFERENCES

Aaltonen, A., Määttänen, E., Kyrö, R. and Sarasoja, A.-L. (2013). Facilities Management Driving Green Building Certification: A Case From Finland. *Facilities*, *31*(7), 328–342.

Abbaszadeh, S., Zagreus, L., Lehrer, D. and Huizenga, C. (2006). Occupant Satisfaction with Indoor Environmental Quality in Green Buildings. In *Healthy Buildings* 3, 365–370.

Abdullah, H., Rose, R. C. and Kumar, N. (2007). Human resource development strategies: The Malaysian scenario. *Journal of Social Science*, *3*(4), 213-222.

Abdullah, H., Che-Ros, R. and Kumar, N. (2007). Human resource development practices in Malaysia: A case of manufacturing industries. *European Journal of Social Sciences*, *5*(2), 37-52.

Abidin, N. (2009). Sustainable construction in Malaysia: Developers' Awareness', World Academy of Science, Engineering and Technology, 807–814.

Adams, C. A., and Frost, G. R. (2008). Integrating sustainability reporting into management practices. *Accounting Forum*, *32*(4), 288–302.

Adler, E., J., A., Fuller, S. K., Guy, G. B., Kalin, M., Karolides, A. and Walker, H. A. (2006) .*Green building: Project planning and cost estimating (2 ed.). Kingston,* R.S. Means *Mass.*

Adner, R. and Helfat, C. E. (2003). Working Paper Series Corporate Effects and Dynamic Managerial Capabilities. *Strategic Management Journal, 24*, 1011–1025.

Afsana, J., Afrin, F. and Tarannum, T. (2016). Effect of Training on Employee Performance : An Empirical Study on Telecommunication Industry in Bangladesh. *Journal of Business and Technology (Dhaka), 10(2), 67-80.*

Aguinis, H. and Kraiger, K. (2009). Benefits of Training and Development for Individuals and Teams, Organizations, and Society. *Annual Review of Psychology*, *60*(1), 451–474.

Ahmad, S. (2015). Green Human Resource Management: Policies and practices. *Cogent Business & Management*, *2*(1), 1030817.

Ain, E., Ali, H. M. and Sani, S. I. A. (2012). A Review of The Effect of Building Design on Maintenance Management. In *Paper presented at the 3rd International Conference on Business and Economic Research, Bandung, Indonesia.*

Ainuddin, R. A., Beamish, P. W., Hulland, J. S. and Rouse, M. J. (2007). Resource attributes and firm performance in international joint ventures. *Journal of World Business*, *42*, 47–60.

Air Quality Science. (2011). Green Cleaning for Health. Retrieved from Atlanta, GA.

Aktas, B. and Ozorhon, B. (2015). Green Building Certification Process of Existing Buildings in Developing Countries: Cases from Turkey. *Journal of Management*

in Engineering, *31*(6), 5015002.

Al-Fares, S. (2011). The effect of incentives strategies on organizational loyalty in public sector. *Alsham University Journal*, *27*(1).

Al Madani, E. M. (2012). *Greening Existing Buildings in the United Arab*.

Alexander, K., Atkin, B., Brochner, K. and Haugen, T. (2004). *Facilities Management Innovation and Performance. New York: Spon Press.*

Alhaddi, H. (2015). Triple Bottom Line and Sustainability: A Literature Review. *Business and Management Studies*, *1*(2), 6–10.

Ali, R. and Ahmed, M. S. (2009). The Impact of Reward and Recognition Programs on Employee's Motivation and Satisfaction. *International Review of Business Research Papers*, *5*(4), 270–279.

Alia, A. M. B. (2017). *Exploring The Potential For Green-Oriented Procument For Building Projects : A Case of The Malaysian Construction Industry. PhD Thesis Queensland University of Technology.*

Aliagha, G. U., Hashim, M., Sanni, A. O. and Ali, K. N. (2013). Review of Green Building Demand Factors for Malaysia. *Journal of Energy Technologies and Policy*, *3*(11), 471–478.

Alias, A., Isa, N. K. M. and Samad, Z. A. (. (2012). Green and Sustainable Buildings: Preliminary Research on The Benefits And Barriers. In *Paper presented at the International Real Estate Research Symposium*.

Allen, P. and Bennett, K. (2010). *PASW Statistics by SPSS - A practical guide: version 18.0:Melbourne, Victoria: Cengage Learning.*

Aman, N. U. B. (2014). *The Implementation Of Green Lease Practices For Commercial Buildings In Kuala Lumpur*.

Amaratunga, D., Baldry, D., Sarshar, M. and Newton, R. (2002). Quantitative and qualitative research in the built environment: Application of "mixed" research approach. *Work Study*, *51*(1), 17–31.

American School and University. (2015). Honorable Mention: Chemical Reduction Higher Education University Of TennesseE, Knoxville, Tennessee., *Vol. 88*(4), p28–28. 1/2p.

Amy, E. (2004). Clean, green conferencing. *Health Facilities Management*, *432*(7015), 257.

Anderson, J. C. and Gerbing, D. W. (1982). Some methods for respecifying measurement mode ls to obtain unidimensional construct measurement. *Journal of Marketing Research*, *12*(4), 453 – 460.

Anderson, J. C. and Gerbing, D. W. (1984). The Effect Of Sampling Error On Convergence, Improper Solutions, And Goodness-Of-Fit Indices For Maximum Likelihood Confirmatory Factor Analysis. *Psychometerik*, *49*(2), 155–173.

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, *103*(3), 411–423.

Anuar, A., NorKalsum, M. I., Zulkiflee, A. S., & Mohd Yazid, M. Y. (2012). Green and Sustainable Buildings: Preliminary Research on the Benefits and Barriers. In *Presented at International Real Estate Research Symposium held in Malaysia* .

Appelbaum, E., Bailey, T., Berg, P. and Kalleberg, A. (2000). *Manufacturing advantage: why high-performance work systems pay off . Ithaca: Cornell University Press.*

Aragón-Correa, J. A., & Sharma, S. (2003). A contingent resource-based view of proactive corporate environmental strategy. *Academy of Management Review*, *28*(1), 71–88.

Arge, K. (2004). *Why Do Real Estate Actors Weight Adaptability Differently for Office buildings? In Alexander, K., Atkin, B., Brochner, J., Haugen, T. (Ed.), Facilities Management Innovation and Performance . New York: Spon Press.*

Argyres, N. (1996). Evidence on the Role of Firm Capabilities in Vertical Integration Decisions. *Strategic Management Journal*, *17*(2), 129–150.

Ariely, G. (2003). Knowledge Management As A Methodology Towards Intellectual Capital. Presented at the 3rd European Knowledge Management Summer School; Spain; 7 - 12 September; San Sebastian.

Arif, A. A. and Delclos, G. L. (2012). Association between cleaning-related chemicals and work-related asthma and asthma symptoms among healthcare professionals. *Occupational and Environmental Medicine*, *69*(1), 35–40.

Arif, A. A, Delclos, G. L. and Serra, C. (2009). Occupational exposures and asthma among nursing professionals. *Occupational and Environmental Medicine*, *66*(4), 274–278.

Arnold, E. and Beardsley, E. R. (2015). *Perspectives on Implementation and Effectiveness of School Green Cleaning Laws. Centre for Green schools,U. S. Green Building Council.*

Arppe, A. (2008). *Univariate, bivariate, and multivariate methods in corpus-based lexicography: a Study of synonymy*.

Arslan, G and Kivrak, S. (2008). Critical Factors to Company Success in the Construction Industry. *Civil Engineering*, *45*(9), 404–407.

Ashkin, S. (2006). Going Green : A Gift that Keeps on Giving. *Campus Facility Maintenance;*, *3*(4), 32.

Ashkin, S. (2006). True Green:The Green Cleaning Journey. *ISSA Today* (March/April), 12–13.

Ashkin, S. (2007). Environmentally Preferred Chemicals - What is available ? What on the forefront of development ? *Campus Facility Maintenance*, *4*(3), 35.

Ashkin, S. (2009). Science Drives Move To Green Cleaning. *Building Operating Management*, *56*(5), 27.

Ashkin, S. (2013). The magic of Training:Tips for successful maintenance training programs. *American School & University*, *85*(9), 1.

Ashkin, S. (2016). Greener Cleaning Playbook: A guide to help sports venue operators develop a greener cleaning program: Green Sport Aliance.

Ashkin, S. and Holly, D. (2007). *Green Cleaning for Dummies; ISSA Edition, Wiley Publication, Inc*.

Ashkin, S. and Holly, D. (2008). *The Business of Green cleaning:IFMA Foundation.*

Ashkin, S. P. (2008). Environmental Services: Greening the Cleaning. *Health Facilities Management;*, *21*(11), 43.

Ashkin, S. P. (2008). Greening the Cleaning. Environmental Services.

Ashkin, S. P. (2010). The Training Component in Green Cleaning. *The Ashkin Group*.

Ashkin, S. P. (2013). The Future of Green Cleaning Is People: A Big Step In The Advancement Of Green Cleaning Is Maintaining A Culture That Understands And Perpetuates Its Importance. *Environmental Design & Construction*, *16*(10), 24–25.

Asia Green Building. (2013). 389 Registered GBI Project in Malaysia. In *Eco- B Workshop in Conjunction with Malaysia Green Building Confederation (MGBC), Kuala Lumpur.*

Asset Skills. (2010). *UK Sector Skills Assessment. Assessment*. Retrieved from http://www.skillsforhealth.org.uk/planning-your-workforce-strategy/skills-labour-market-intelligence/~/media/Resource-Lbrary2/LMI/SfH-Full-UK-

Sector-Skills-Assessment-2011.ashx

Astrachan, C. B., Patel, V. K. and Wanzenried, G. (2014). A comparative study of CB-SEM and PLS-SEM for theory development in family firm research. *Journal of Family Business Strategy, 5*(1), 116–128.

Atamamen, F. O, Mohammed A. H and Atamamen, T. F (2018). Testing Measurement Invariance for Green Cleaning Services Implementation across Malaysian Cleaning Industry Stakeholders' Group. *Progress in Energy and Environment*, 5 50 - 61.

Atamamen, F. O., Mohammed, A. H., Hamid, H. and Naim, M. A. (2016). A Conceptual Framework OF Critical Success Factors for Green Cleaning Implementation and Performance. *International Journal of Real Estate Studies*, *10*(2), 55–72.

Atieno, O. P. (2009). An analysis of the strengths and limitation of qualitative and quantitative research paradigms:Problems of Education in the 21st Century, 13, 13–18.

Atifi, N. (2012). Clean Up, Green Up . *Business Today* ., 30–34.

Aulanko, M. (1997). Future trends in professional Cleaning. *Journal of Consumer Studies and Home Economics*, *21*(4), 371–385.

Awang, M. and Mohammad, H. A. (2015). Reliability and validity of facilities management competencies instrument using partial least squares. *International Journal of Social Science and Humanity*, *5*(1).

Awang, M., Mohammad, A. H., Sapri, M. and Rahman, M. S.(2014). Requisite facilities management competencies for sustainable development at higher education institutions. *Journal of Sustainability Science and Management*, *9*(2), 71–89.

Azizi, N. S. M., Fassman, E. and Wilkinson, S. (2011). Risks Associated in Implementation of Green Buildings . *Auckland, New Zealand: Department of Civil Environmental Engineering*

Bagozzi, R. P. and Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, *16*(1), 74–94.

Bailey, K. D. (1994). Methods of Social Research (4th ed.). New York: The Fee Press.

Bakar, A. H. A., Razak, A. A., Abdullah, S., Awang, A. and Perumal, V. (2010). Critical success factors for sustainable housing: A framework from the project: management view. *Asian journal of management research*,*1*(1), 66-80

Balek, B. (2009). Green Cleaning and LEED ® for Existing Buildings : Operations and Maintenance What ' s the Connection ?

Balek, B. (2012). Green Cleaning Label Power. *American School & University*, *84*(10).

Balek, B. (2012). State Governments : Promoting Green Cleaning in Schools. *National Association of State Boards of Education*, (February), 10–18.

Bansal, P. and Roth, K. (2000). Why companies go green: A model of ecological responsiveness. *Academy of Management Journal, 43*(4), 717–736.

Barbara, M. B. (2005). Factor Analytic Models: Viewing the Structure of an Assessment Instrument From Three Perspectives. *Journal of Personality Assessment*, *85*(1), 17–32.

Barbara M. Byrne. (2001). Structural Equation Modeling With AMOS, EQS, and LISREL: Comparative Approaches to Testing for the Factorial Validity of a Measuring Instrument. *International Journal of Testing*, *1*(1), 55–86.

Barney, J. (1991). Resources and Sustained Competitive Advantage. *Journal of Management*, *17*(1), 99–120.

Barney, J. B. (1986). Organizational Culture : Can It Be a Source of Sustained Competitive Advantage ? *The Academy of Management Review*, *11*(3), 656–665.

Barney, J. B. (1996). Organization Culture: Can It Be a Source of Sustained Competitve Advantage. *Academy of Management Review*, *11*(3), 656–665.

Barney, J. B. (2001). Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *Journal of Management*, *27*(6), 643.

Barney, J. B. and Arikan, A. M. (2001). *The resource-based view: origins and implications. in Hitt, M.A., Freeman, R.E. and Harrison, J.S., eds., Handbook of Strategic Management, Blackwell Publishers Ltd., Oxford, UK, pp.124-188. Handbook of Strategic Management*.

Baron, R. M. and Kenny, D. A. (1986). The Moderator-Mediator Variable Distinction in Social The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology*, *51*(6), 1173–1182.

Barrett, P. (2007). Structural equation modelling: Adjudging model fit. *Personality and Individual Differences*, *42*(5), 815–824.

Barron, T. (2004). *Intangible Benefits from Shifting to Environmentally Preferable Janitorial Products. City of Seattle.*

Barron, T., Berg, C. and Bookman, L. (1999). *How to select and use safe janitorial chemicals.Project completion report. Pollution prevention incentives for States.[Internet]. Santa Clara (CA): U.S. EPA Region IX California EPA (US) 1999 [cited 2014 Jan 2]. Available from: http://wsppn.org/pdf/janito*.

Barry, B. and Hoskisson, R. E. (1989). Diversification Strategy And R & D Intensity In Multiproduct Firms. *Academy of Management Journal*, *32(2)*, 310–332.

Beauchamp, A., Chase, C., Christmus, N., Cummings, J., Petersen, G., Petruzzi, M. and Yen, Y.-Y. (2011). Green Building Operations and Maintenance Manual. U.S.: Green Seal, Inc. and Siemens Industry, Inc.

Beheiry, S. M., Chong, W. K. and Haas, C. T. (2006). Examining the Business Impact of Owner Commitment to Sustainability. *Journal of Construction Engineering and Management*, *132*, 384.

Belkic, K. L., Landsbergis, P., Schnall, P. L. and Baker, D. (2004). Is job strain a major source of cardiovascular disease risk? *Scandinavian Journal of Work, Environment & Health*, *30*(2), 85–128.

Bello, A., Quinn, M. M., Perry, M. J. and Milton, D. K. (2009). Characterization of occupational exposures to cleaning products used for common cleaning tasks--a pilot study of hospital cleaners. *Environmental Health : A Global Access Science Source*, *8*(11), 11.

Bello, A., Quinn, M. M., Perry, M. J. and Milton, D. K. (2010). Quantitative assessment of airborne exposures generated during common cleaning tasks : A pilot study. *Environmental Health, 9*(76), 1–10.

Bennett, M. and James P. (1999). Sustainable Measures: Evaluation and Reporting of Environmental and Social Performance. Greenleaf, Sheffield, UK.

Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, *107*(2), 238–246.

Bentler, P. M. and Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin.*, *88*(3), 588–606.

Berardi, U. (2013). Clarifying the new interpretations of the concept of sustainable building. *Sustainable Cities and Society*, *8*(2013), 72–78.

Bernotavicz, F. (1997). (1997). *Retention of child welfare caseworkers: A report. Portland, ME: University of Southern Maine, Institute for Public Sector*

Innovation, Edmund S. Muskie School of Public Service.

Berry, M. A. (2002). *Healthy school environment and enhanced educational performance the case of charles young elementary school Washington, DC. CRI.*

Berry, M. A. (2011). The Green Movement and Science.

Bertram, D. (2012). *Likert scale. CPSC 681 – Topic Report. Retrieved 14 August 2017 from http://poincare.matf bg.ac.rs/~kristina//topic- dane-likert.pdf*

BETCO. (2008). Sustainable Green Cleaning: Cleaning for Health and the Environment. Toledo, Ohio.

Bettley, A. and Burnley, S. (2008). *Towards sustainable operations management integrating sustainability management into operations management strategies and practices. In: Misra KB (ed) Handbook on Performability Engineering. Springer, London,.*

Bhalerao, S. and Singh, R. (2011). Hospitals "Go Green": A Study Of Greening Efforts Of Indian Hospitals. In S. Nenninger (Ed.), *Third Annual General Business Conference Proceedings ,Sam Houston State University College of Business Administration Smith-Hutson Business Building* (Vol. II, pp. 6–17). Huntsville, Texas, USA.

Bhattacharya, C. B., Sen, S. and Korschun, D. (2008). "Using Corporate Social Responsibility to Win the War for Talent." *MIT Sloan Management Review*, *49*(2), 37–44.

Bielefeld, W. (2006). Quantitative Research for Nonprofit Management. *Nonprofit Management & Leadership*, *16*(4), 177–182.

Bin, Y., Tong, X. and Longyu, S. (2017). Analysis on Sustainable Urban Development Levels and Trends in China's Cities. *Journal of Cleaner Production,* (141), 868–880.

Bishop, R. C. (1993). Economic Efficiency , Sustainability , and Biodiversity. *Biodiversity: Ecology, Economics, Policy*, *22*(2), 69–73.

Björklund, A. and Finnveden, G. (2005). Recycling revisited - Life cycle comparisons of global warming impact and total energy use of waste management strategies.

Black, S. A. and Porter, L. J. (1996). Identification of the critical factors of TQM. *Decision Sciences*, *27*(1).

Bogdan, R. C. and Biklen, S. K. (1998). *Qualitative research in education: An introduction to theory and methods (3rd ed.). Needham Heights, MA: Allyn & Bacon.*

Bollen, K. A. (1989). A new incremental fit indexes for greneral equation modeliing. *Sociological Methods & Research*, *17*(3), 303–316.

Boudreau, J. W. and Ramstad, P. M. (2007). Beyond Hr. Boston. Harvard Business School Press.

Bourdieu, P. (1986). *The forms of capital. In J. G. Richardson (Ed.), Handbook of theory and practice for the sociology of education . New York: Greenwood.*

Bowen, F. E., Cousins, P. D., Lamming, R. C. and Faruk, A. C. (2001). The role of supply management capabilities in green supply. *Production and Operations Management*, *10*(2), 174–189.

Brace, I. (2008). *Questionnaire Design:How To Plan, Structure And Write Survey Material For Effective Market Research.Kogan Page Publishers.*

Brown, M., Grevatt, P. and Merse, C. (2012). *Why Green Clean Our Schools ? State Education Standard.*

Browne, M. W. and Cudeck, R. (1993). *Alternative ways of assessing model fit. Sage focus editions,154.*

Bruno, A. V. and Leidecker, J. K. (1984). Identifying and using critical success factors

Leidecker Joel K Bruno, V. Bruno , 17 (1), 23-32.
Building Maintenance Services. (2013). Daytime Cleaning Evaluation. Retrieved from http://bmsbuildingservices.com/BMS-Day-Cleaning-White-Paper.pdf.
Buildings. (1999). Buildings, *93*(11).
Bullen, C. V and Rockart, J. F. (1981). A Primer On Critical Success Factors Christine V. Bullen John F. Rockart, (69).
Burns, R. B. (2000). Introduction to Research Methods (4th ed.). Frenchs Forest: Pearson Education.
Burt, R. S. (1992). *The Social Structure of Competition*. *Harvard university press*.
Buysse, K., Verbeke, A., Strategic, S., Journal, M., May, N., Wiley, J., Verbeke, A. (2003). Proactive Environmental Strategies : A Management Perspective Stakeholder. *Startegic Management Journal*, *24*(5), 453–470.
Byrne, B. M. (2010). *Structural Equation modeling With AMOS: Basic C0ncept, Application and Progranning.Newyork Routledge*. *Routledge*.
Byrne, B. M. (2011). *Structural Equation Modeling with M plus. Basic Concepts, Applications, and Programming*.
Byrne, B. M. (2013). *Structural Equation Modeling with M plus. Basic Concepts, Applications, and Programming.Routledge*.
Byrne, B. M. (2016). *Structural equation modeling with AMOS: Basic concepts, applications, and programming . Routledge.*
Cagwin, D. and Bouwman, M. J. (2002). The association between activity-based costing and manufacturing performance. *Journal of Accounting Research*, *40*(3), 711–726.
Campbell, F. (1990). Cleaning and maintenance workers. *Facilities*, *8*(3), 20–23.
Campbell, J. L. (2005). Significantly reducing facility maintenance costs through innovative custodial safety. *Journal of Facilities Management*, *3*(3), 203–214.
Campbell, J. L. (2011). Cutting Costs and Improving for Outcomes Janitorial Services. *Facilities Manager*, *27*(5), 34-36-39.
Canaan, P., Greg, L., Ryan, N. and Garrett, W. S. (2010). *Public School Districts' Adherence to Guidelines for Environmental Sound Practicespractices* Phd Thesis,University of.Saint Louis University.
Carey, S., Lawson, B. and Krause, D. R. (2011). Social capital configuration, legal bonds and performance in buyer-supplier relationships. *Journal of Operations Management*, *29*(4), 277–288.
Carmines, E. G. and Mclver, J. P. (1981). *Analyzing models with unobserved variables. In G.W.Bohrnstedt,&E. F. Borgatta (Eds.) Social measurement: Current issues. Beverly Hills, CA: Sage.*
Carpet and Rug Institute. (2002). *Healthy school environment and enhanced educational performance the case of charles young elementary school Washington, DC*. Case, S. (2010). The ABCs of Green Cleaning. *Government Procurement*, *18*(2), 24–26.
Cavana, R. Y., Delahaye, B. L. and Sekaran, U. (2001). *Applied Business Research: Qualitative and Quantitative Methods (1st ed.). US & Australia: John Wiley & Sons Australia, Ltd*.
Chalupka, A. C. (2015). *Green Cleaning Technology Adoption:An Historical Analysis.* PhD Thesis, University Of Massachusetts, Lowell.
Chan, E. S. W., Hon, A. H. Y., Chan, W. and Okumus, F. (2014). What drives employees' intentions to implement green practices in hotels? The role of knowledge, awareness, concern and ecological behaviour. *International Journal of Hospitality Management*, *40*, 20–28.

Chaplin, W. (2007). Moderator and mediator models in personality research: A basic introduction. In Robins, RW.; Fraley, RC.; Krueger, R., (eds). Handbook of research methods in personality psychology. Guilford Press; New York:p. 602-632.

Charles, C. M. (1995). Introduction to educational research (2nd ed.). San Diego, Longman.

Chau, P. Y. and Hu, P. J.H. (2001). Information technology acceptance by individual professionals : A model comparison approach . *Decision Sciences*, *32*(4), 699–719.

Chenven, L. and Copeland, D. (2013). Front-line Worker Engagement: Greening Health Care, Improving Worker and Patient Health, and Building Better Jobs. *New Solutions : A Journal of Environmental and Occupational Health Policy : NS*, *23*(2), 327–45.

Cherian, J. P. and Jacob, J. (2012). A Study of Green HR Practices and Its Effective Implementation in the Organization: A Review. *International Journal of Business and Management*, *7*(21), 25–33.

Chiang, C. F., Back, K. J. and Canter, D. D. (2005). The impact of employee training on job satisfaction and intention to stay in the hotel industry. *Journal of Human Resources in Hospitality & Tourism, 4*(2), 99–118.

Chin, W., Vinzi, V., Henseler, J. and Wang, H. (2010). *How to Write Up and Report PLS Analyses.. In V. Vinzi, W Chin, J. Henseler and H.Wang, Handbook of Partial Least Squares: Concepts, Methods and Application in Marketing and Related Fields 655-690. Berlin: Springer.*

Chisnall, P. M. (1992). *Marketing Research: International Edition(4th ed.).Singapore: McGraw-Hill.*

Chmielewski, D. A. and Paladino, A. (2007). Driving a resource orientation: reviewing the role of resource and capability characteristic. *Management Decision*, *45*(3), 2007.

Christmann, P. (2000). Effects of " Best Practices " of Environmental Management on Cost Advantage : The Role of Complementary Assets. *Academy of Management Journal*, *43*(4), 663–680.

Christmann P, and Taylor, G. (2002). Globalization and the environment: strategies for international voluntary environmental initiatives. *Academy of Management Journal*, *16*(3), 121–135.

Chua, D. K. H., Kog, Y. C. and Loh, P. K. (1999). Critical Success Factors for Different Projects Objectives. *Engineering*, *125*(3), 142–150.

Chua, Y. P. (2009). *Advanced research statistics: Regression tests, factor analysis and SEM analysis. Advanced Statistics: Regression Test, Factor Analysis and SEM. Kuala Lumpur: McGraw-Hill.*

Churchil Jr., G. A. (1979). A Paradigm for Developing Better Measures of Marketing Constructs. *Journal of Marketing Research*, *16*(1), 64–73.

Churchill, G. A. (1995). *Marketing Research Methodological Foundation (6th ed.). Orlando, Florida: The Dryden Press.*

Churchill, G. and Brown, T. (2004). *Basics marketing research (5th ed.) Ohio: South Western.*

CIDB. (2015). The Construction Industry Transformation Program, 2016-2020 . Kuala Lumpur, Malaysia: Construction (2015) Industry Development Board Malaysia. Percetakan Nasional Malaysia Berhad. Kuala Lumpur.

Cintas, O., Hernandez, J., X. Jiménez, & Meluni, A. (2015). Green Cleaning Service: A Management Approach By Industrial Ecology.In UPC Sostenible 2015. Centre

per a la Sostenibilitat. In *II Congrés UPC Sostenible 2015*.

Clarke, A. (1999). *Evaluation Research: An Introduction to Principles, Methods and Practice . Thousand Oaks, CA: Sage Publication.*

Cleaning and Maintenance Management(CMM). (2015). *Results from the 2015 CMM In-House/Facility Manager Benchmarking Survey*.

Cleaning Industry Management Standard(CIMS). Management Standard (2009).

Cleaning Industry Research Institute (CIRI). (2009). What is Green Cleaning? Retrieved from http://www.ciriscience.org/a_195-

CleanLink. (2017). Water Usage Facts and How to Be More Efficient available at http://www.cleanlink.com/news/article/Water-Usage-Facts-And-How-To-Be-More-Efficient--20577.

Coakes, S. (2012). *Analysis Without Anguish with SPSS V20,Milton, Old. John Wiley and Sons Inc.*

Coakes, S. J. (2006). *SPSS: Analysis Without Anguish: Version 14.0 for Windows . Milton, Qld: John Wiley & Sons*.

Cobanoglu, C. and Cobanoglu, N. (2003). The effect of incentives in web surveys: application and ethical considerations. *International Journal of Market Research*, *45*(4), 475–488.

Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education 6 th edition. London: Routledge. The Handbook of Psychology - Vol2 Methods 2 Specific methods*.

Cole, E., Foarde, K. K., Leese, K. E., Franke, D., Dulaney, P. D., Green, D. A., & Hall, R. M. (1994). *Indoor Environment Characterization of a Non -Problem Building: Assessment of Cleaning Effectiveness. Report of the Research Triangle Institute for the Environmental Criteria and Assessment Office, US EPA.*

Coleman, J. S. (1988). Social Capital in the Creation of Human Capital. *American Journal of Sociology*, *94*, 95–120.

Collis, D. and Montgomery, C. A. (1995). Competing on Resources: Strategy in the 1990s,". *Harvard Business Review, 73*, (July-August), .118-128.

Collis, J. and Hussey, R. (2009). *Business research: A practical guide for undergraduate & postgraduate students. Basingstoke, Hampshire .UK. Palgrave*

Conference Board of Canada. (2013). Absenteeism Trends in Canadian Organizations:Missing in Action.Briefing;Sun Life Financial. *Conference Board of Canada*.

Conrad, M. J. and Pate, D. A. (2009). *Green Cleaning.In Green Facilities Handbook: Simple & Profitable Strategies For Managers(211-213). The Fairmont Press, Inc*.

Corbett-Shramo, J. and Wagner, D. and P. E. (2011). *Sustainability " How-To Guide " Series Global Green Cleaning. Ifma foundation*.

Cortina, J. M. (1993). What is coefficient alpha? An examination of theory and applications. *Journal of Applied Psychology*, *78*(1), 98–104.

Cotts, D. G., Roper, K. and Payant, R. . (2010). *The Facility Management Handbook. (3rd ed). New York: AMACOM*.

Cox, J., Sanders, L. and Todd, J. (2009). Reduce, Reuse, Reinvent: How to Revitalize Your Janitorial Procedures Using Green Cleaning Techniques. Retrieved from http://www.boma.org/research/Documents/Find%20a%20Resource/ReduceReuse%20Reinvent%20FINAL.pdf.

Crandall, B. (2015). Workloading Controls Cleaning Costs. *AICS*.

Creswell, J. W. (1994). *Research Design: Qualitative and Quantitative Approaches. Thousand Oaks: Sage Publications.*

Creswell, J. W. (2003). *Research Design: Qualitative, Quantitative and a Mixed Method Approaches (2 ed.). Thousand Oaks, London: Sage.*

Creswell, J. W. (2009). *Research Design:Qualitative, Quantitative, and Mixed Methods Approaches, 3rd edn, Sage Publications,Thousand Oaks, California.*

Creswell, J. W. (2012). Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research (4 ed.). Boston, New York: Pearson Education.

Creswell, J. W. (2014). *Research design : qualitative, quantitative, and mixed methods approaches (4th ed).Thousand Oaks, California, Sage Publication, Inc.*

Crook, T., Ketchen Jr, D., Combs, J. and Todd, S. (2008). Strategic resources and performance: a meta-analysis. *Strategic Management Journal 29:*, 1141–1154.

Crotty, M. (2003). *The foundations of social research : meaning and perspective in the research process. London ; Thousand Oaks, Calif*

Cruz, D. (2007). Application of Data Screening Procedures in Stress Research. *The New School Psychology Bulletin*, *5*(2), 41–45.

CT Foundation for Environmentally Safe Schools. (2008). Green Cleaning in Schools is Cost Effective www.safehealthyct.org/documents/Green_Cleaning_Cost_Effective__2_.doc .

Culver, A. (2008). *Experiences of Municipal Green Purchasing Pioneers Buying Smart. Green Purchasing Institute.*

Culver, A., Marian, F., Klebenon, D., Musnikow, J. and Sutherland, L. (2002). Cleaning for Health : Products and Practices for a Safer Indoor Environment. Inform, 1–50.

Curkovic, S. (2003). Environmentally responsible manufacturing: The development and validation of a measurement model. *European Journal of Operational Research*, *146*(1), 130–155.

Danish, R. Q. and Usman, A. (2010). Impact of Reward and Recognition on Job Satisfaction and Motivation : An Empirical Study from Pakistan. *International Journal of Business and Management*, *5(2)*, 159.

Darling K., Arm, J. and Gatlin, R. (1997). How to effectively reward employees. *Industrial Management*, *39*(4), 1–4.

Datta, D. K., Guthrie, J. P., & Wright, P. . (2005). "Human Resource Management and Labour Productivity: Does Industry Matter?" *Academy of Management Journal*, *48*(1), 135–145.

Davis, D., &, & Cosenza, R. M. (. (1993). *Business Research for Decision Making . Belmont, California: Wadsworth.*

Dawal, S.Z., Taha, Z., & Ismail, Z. (2009). Effect of job organization on job satisfaction among shop floor employees in automotive industries in Malaysia. *International Journal of Industrial Ergonomics*, *39*(1), 1–6.

Day, B. A. and Monroe, M. C. (2000). *Environmental Education & Communication for a Sustainable World: Handbook for International Practitioners. Washington, DC: Academy for Education Development. Environmental Education* (Vol. 1).

Day, D. (1994). Raising radicals: Different processes for championing innovative corporate ventures. *Organization Science.*, *5*, 148 – 172.

De Vaus, D. . (2002). *Survey In Social Research.(5th ed.). St. Leonards, NSW: Allen and Unwin.*

De Vaus, D. A. (1986). Surveys in Social Research.(4th ed.). North Sydney: Allen and Unwin. *Contemporary Sociology*.

Deborah, D. and Hardy, C. (1996). Sustained Product Innovation in Large , Mature Organizations : Overcoming Innovation-to- Organization Problems. *The*

Academy of Management Journa, *39*(5), 1120–1153.

DeCenzo, A. D. and Robbins, S. . (2010). *Fundamentals of Human Resource Management (10th ed.), Hoboken, NJ: John Wiley & Sons, Inc.*

Del Canto, J. G., & Suárez, G. (1999). A resourced-based analysis of the factors determining a firm's R&D activities. *Research Policy*, *28*(8), 891–905.

Delclos, G. L., Gimeno, D., Arif, A. A., Burau, K. D., Carson, A., Lusk, C. and Antó, J. M. (2007). Occupational risk factors and asthma among health care professionals. *American Journal of Respiratory and Critical Care Medicine*, *175*(7), 667–75.

Demirbag, M., Koh, S. C. L., Tatoglu, E. and Zaim, S. (2006). TQM and market orientation's impact on SMEs' performance. *Industrial Management & Data Systems*, *106*(8), 1206–1228.

Dempsey, N., Bramley, G., Power, S. and Brown, C. (2011). The Social Dimension of Sustainable Development: Defi ning Urban Social Sustainability. *Sustainable Development*, *19* (May 2009), 289–300.

Deng, S. and Dart., J. (1994). Measuring market orientation: A multi- factor, multi-item approach. *Journal of Marketing Management*, *10:*, 725–42.

DeNisi, A. S. and Griffin, R. . (2008). Managing Human Resources (3rd ed.), Boston: Houghton-Mifflin.

Dent, C. M. (2016). East Asian Regionalism. Routledge.

Denzin, N. K. and Lincoln, Y. S. (Eds. . (1994). *Handbook of qualitative research. Thousand Oaks, CA: Sage.*

Department of Statistics. (2010). Preliminary Count Report. Retrieved 17 January 2017.

Department of statistics, Malaysia. (2017). Territory of Kuala Lumpur. *Department of Statistics, Malaysia.*

Department of Statistics, Malaysia. (2017). Selangor.

Department of Statistics Malaysia website. (2016). Statisctices .gov.my. Retrieved from http://www.smecorp.gov.my/index.php/en/policies/2015-12-21-09-09-49/sme-statistics

DeVellis, R. F. (2003). *Scale development: Theory and applications.Thousand Oaks: Sage Publications, Inc.*

Dickinson, R., Ferguson, C. and Sircar, S. (1984). Critical success factors and small business. *American Journal of Small Business*, *VIII*, 49–59.

Dimitrov, D. M. (2006). Comparing groups on latent variables: A structural equation modeling approach. *Work-Andover Medical Publishers Incorporated Then Ios Press*, *26*(4), 429.

Dixon, T. (2014). *Corporate Social Responsibility, the Triple Bottom Line, Standardization and Brand Management in Houston, Texas*.

Dixon, T., Colantonio, A., Shiers, D., Reed, R., Wilkinson, S. and Gallimore, P. (2008). A green profession? A global survey of RICS members and their engagement with the sustainability agenda. *Journal of Property Investment & Finance*, *26*(6), 460–481.

Doody. (2010). What are the barriers to implementing environmental practices in the Irish Hospitality Industry. Retrieved from papers://b09e1ca9-3ba5-4aa3-86bf-a8c843d607e1/Paper/p51

Dowell, G., Hart, S., & Yeung, B. (2000). Do Corporate Global Environmental Standards Create or Destroy Market Value? *Management Science*, *46*, 1059–1074.

Dubem I. Ikediashi , Stephen O. Ogunlana , Isaac A. and Odesola. (2015). Service

quality and user satisfaction of outsourced facilities management (FM) services in Nigeria's public hospitals. *Built Environment Project and Asset Management*, *5*(4), 363–379.

Dumas, J. (1998). Usability Testing Methods: Subjective Measures: Part II - Measuring Attitudes and Opinions. October issue of Common Ground,. *The Newsletter of the Usability Professionals' Association,* 4–8.

Eagle, A. (2004). Clean+Green. *Health Facilities Management*, *17*(8), 25.

Easterby-Smith, M., Richard, T. and Andy, L. (1991). *Management Research. An Introduction, Sage: London.*

Easterly-Smith, M., Thorpe, R., & Lowe, A. (2002). *Management Research: An Introduction . 2nd Edition.*

Eccles, M., Armstrong, D., Baker, R., Clearly, K., Davies, H. and Davies, S. (2009). An implementation research agenda. *Implementation Science*, *4*(1), 4–18.

Eddy, D. M., Hollingworth, W., Caro, J. J., Tsevat, J., McDonald, K. M., and Wong, J. B. (2012). Model transparency and validation a report of the ISPOR-SMDM Modeling Good Research Practices Task Force–7. *Value in Health, 15*, 843-850.

Edwards, B. (1996). *Towards sustainable architecture: European directives and building design. Oxford Boston: Butterworth Architecture, London.*

Ehnert, I. (2009). *Sustainable Human Resource Management : A conceptual and exploratory analysis from a paradox perspective,Heidelberg.*

Elattar, S. M. S. (2009). Towards developing an improved methodology for evaluating performance and achieving success in construction projects. *Scientific Research and Essays*, *4*(6), 549–554.

Elkington, J. (2004). *Enter the triple bottom line. In A. Henriques and J. Richardson (Eds.); The triple bottom line: Does it all add up? England: Earthscan.*

Elliott, V. (2012). *Extreme Green Cleaning: The Ultimate Guide to a toxic-free chemical – free cleaning program.*

Emory University. (2010). Building and Residential Services: Green Cleaning Manual. Atlanta, GA.

Environmental Law Institute. (2011). Environmental Law Institute, Database of State Indoor Air Quality Laws, 2011, http://www.eli.org/Buildings/iaq_databases.cfm (accessed August 20, 2012). *Environmental Health.*

Eriksson, C. (2004). Can green consumerism replace environmental regulation? - A differentiated-products example. *Resource and Energy Economics*, *26*(3), 281–293.

Espinoza, T., Geiger, C. and Everson, I. (2010). The Real Costs of Institutional " Green " Cleaning, 1–15.

Everitt, B. S., Sabine, L., Morven, L. and Daniel, S. (2011). *Measurement of proximity.Cluster Analysis,5th Edition.John Wiley & sons Ltd. Sociology The Journal Of The British Sociological Association* (Vol. 07–044).

Facilities. (1984). Analysis: floor maintenance and cleaning The cleaning cycle, *28*(3),

Fan, Y., Chen, J., Shirkey, G., John, R., Wu, S. R., Park, H. and Shao, C. (2016). Applications of structural equation modeling (SEM) in ecological studies: an updated review. *Ecological Processes*, *5*(1), 19.

Faris, C., Gilbert, B., LeBlanc, B., Ballou, B. and Heitger, D. L. (2013). Demystifying Sustainability Risk. Integrating the triple bottom line into an enterprise risk management program. Committee of Sponsoring Organizations of the Treadway Commission.

Fatimah, Z., Zainal, A. A. and Mohammad Ashraf, A. R. (2011). Civil Engineering and Architectural Building Features Disparity and Preservation of Structural and

Fabrics Integrity in Heritage Building: A Review. Presented at International Building & Infrastructure Technology Conference held in Vistana Hotel, Penang.

Fečikova, I. (2004). An index method for measurement of customer satisfaction. *The TQM Magazine*, *16*(1), 57–66.

Fellows, R. and Anita, L. (2008). *Research Methods for Construction:Oxford : Wiley-Blackwell.*

Fernandez, Sergio and Hal G. Rainey. 2006. Managing successful organizational change in the public sector. *Public Administrative Review*, 66(2): 168-176

Finney, S. and Corbett, M. (2007). ERP implementation: a compilation and analysis of critical success factors. *Business Process Management Journal*, *13*(3), 329–347.

Fisk, W. J. and Rosenfeld, A. H. (1997). Estimates of Improved Productivity and Health from Better Indoor Environments. *Indoor Air*, *7*(3), 158–172.

Flynn, B. B., Schroeder, R. G., Bates, K. A. and Flynn, J. (1990). Empirical Research Methods in Operations Management. *Journal of Operations Management*, *9*(2), 250–284.

Flyvholm, M. (1993). Contact allergens in registered cleanilng agents for. *British Journal of Industrial Medicine;50:1043-1050.*

Fornell, C. G. and Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39–50.

Foss, N. J. (1997). *Resources, Firms, and Strategies: A Reader in the Resource-based Perspective. Oxford University Press on Demand.*

Fossas Olalla, M. (1999). The resource-based theory and human resources. *International Advances in Economic Research*, *5*(1), 84–92.

Foster, J. J., Barkus, E. and Yavorsky, C. (2006). *Understanding And Using Advanced Statistics.Sage. Control.*

Frazer, L. and Lawley, M. (2000). *Questionnaire design and administration. Brisbane,Australia: John Wiley & Sons.*

Fry, F. L., Stoner, C. R., & Hattwick, R. E. (2004). *Business: An Integrative Approach. 3rd ed. New York: McGraw-Hill.*

Gabčanová, I. (2011). The Employees – The Most Important Asset in the Organizations. *Human Resources Management & Ergonomics*, *5(1), 30-33.*

Galliers, R. D. (1991). Choosing Appropriate Information Systems Research Approaches: A Revised Taxonomy. In Information Systems Research: Contemporary Approaches & Emergent Traditions, (Nissen H-E, Klein H K and Hirschheim R Eds.), pp.327-346, Elsevier Science Publishers B.V.

Gana, A. B. and Bababe, F. B. (2011). The Effects of Motivation on Workers Performance (A case Study of Maiduguri Flour Mill Ltd. Borno State, Nigeria.). *Continental J. Social Sciences*, *4*(2), 8 – 11.

Garza, J. L., Cavallari, J. M., Wakai, S., Schenck, P., Simcox, N., Morse, T. Cherniack, M. (2015). Traditional and environmentally preferable cleaning product exposure and health symptoms in custodians. *American Journal of Industrial Medicine*, *58*(9), 988–995.

Gefen, D., Straub, D. W. and Boudreau, M.-C. (2000). Structural Equation Modeling and Regression: Guidelines for Research Practice, Communications of the Association for Information Systems.

Gerster, F. M., Vernez, D., Wild, P. P. and Hopf, N. B. (2014). Hazardous substances in frequently used professional cleaning products. *International Journal of Occupational and Environmental Health*, *20*(1), 46–60.

GGHC. (2008). Green Guide for Health Care.pdf.

Ghauri, P. and Gronhaug, K. (2005). *Research Methods in Business Studies: A Practical Guide. 3rd Edition. Prentice Hall.*

Gilbert, D. T., Fiske, S. T. and Lindzey, G. (1998). *The Handbook of Social Psychology, 4th ed.Boston:McGraw-Hill* (Vol. 1).

GIZ, and ICLEI. (2012). Discussion Paper: Green Urban Economy – Conceptual basis and courses for action". *ICLEI Briefing Sheet*, (January).

Global Reporting Initiative GRI. (2002). *Sustainability Reporting Guidelines. Boston (MA)*. Retrieved from https://www.globalreporting.org/resourcelibrary/GRIG4-Part1-Reporting-Principles-and-Standard-Disclosures.pdf

Goetzel, R., Long, S., Ozminkowski, R., Hawkins, K., Hawkins, K. and Lynch, W. (2004). Health, absence, disability, and presenteeism cost estimates of certain physical and mental health conditions affecting U.S. employers. *Journal of Occupational and Environmental Medicine*, *46*(4), 398–412.

Goggins, R. (2006). Ergonomic Solutions for Cleaning Workers. In *In ASSE Professional Development Conference and Exposition. American Society of Safety Engineers* (pp. 1–12). Washington.

Goldin, P. (2007). Clean and green. *Summit*, *10*(3), 16.

Grace, J. B. (2006). *Structural Equation Modeling and Natural Systems.Cambridge University Press. Fish and Fisheries.*

Graham, J. M. (2006). Congeneric and (Essentially) Tau-Equivalent Estimates of Score Reliability What They Are and How to Use Them. *Educational and Psychological Measurement*, 66(6), 930–944.

Grandjean, P. and Landrigan, P. (2006). Developmental neurotoxicity of industrial chemicals. *The Lancet*, 368(9553), 2167–2178.

Grant, R. (2002). *The Knowledge-Based View of the Firm. In Choo and Bontis (Eds.) The Strategic Management of Intellectual Capital and Organizational Knowledge , New York: Oxford University Press.*

Grant, R. M. (1991). The resource-based theory of competitive advantage: implications for strategy formulation. *California Management Revieww*, 33(3), 114–135.

Grant, R. M. (1996). Toward a knowledge-based theory of the firm. *Strategic management Journal,* 7(S2), 109-122.

Green Building Council of Australia (GBCA). (2010). Green life for heritage building. Sedney. available at: www.gbca.org.au/green-star/green-building-case-studies/greenlife- for-heritage-buildings-39-hunter-street-sydney/3086.htm.

Green Building Index, GBI Rating System. Retrieved from http://www.greenbuildingindex.org/how-GBI-works2.html.

Green Cleaning Awards For Schools and Universities. (2015). Honorable Mention: Chemical Reduction. *American School & University*, *88(4), 28.*

Green Seal. (2013). *Green Cleaning at Your School.*

Greene, P. G. and Brown, T. E. (1997). Resource needs and the dynamic capitalism typology. *Journal of Business Venturing*, 12(3), 161-173.

Grix, J. (2002). Introducing Students to the Generic Terminology of Social Research. *Politics*, *22*(3), 175–186.

Guba, E. G. and Lincoln, Y. S. (1994). *Competing paradigms in qualitative research. In N.K. Denzin and Y. S. Lincoln (Eds.), Handbook of qualitative research. Thousand Oaks, CA: Sage.*

Gudienė, N., Banaitis, A., & Banaitienė, N. (2013). Evaluation of critical success factors for construction projects–an empirical study in Lithuania. *International*

Journal of Strategic Property Management, 17(1), 21–31.

Guide Whole Building Design. (2013). Sustainable . Retrieved January 12, 2013, from http://www.wbdg.org/design/sustainable.php.

Gute, D. M., Siqueira, E., Goldberg, J. S., Galvão, H., Chianelli, M. and Pirie, A. (2009). The. Vida Verde Women's Co-Op: Brazilian immigrants organizing to promote environmental and organizing to promote environmental and social justice. *American journal of public health*, *99*(S3), S495-S498.

Hair., J. F., Black, W. C., Babin, B. J. and Anderson, R. E. (2010). *Multivariate Data Analysis* (7th ed.).

Hair, E. C., Park, M. J., Ling, T. J. and Moore, K. A. (2009). Risky Behaviors in Late Adolescence: Co-occurrence, Predictors, and Consequences. *Journal of Adolescent Health*, *45*(3), 253–261.

Hair, J. F., Anderson, R. E., Tatham, R. L. and Black, W. C. (1995). *Multivariate Data Analysis with Readings (4th ed.). Englewood Cliffs, NJ: Prentice Hall. 1995. Multivariate Data Analysis with Readings (4th ed.). Englewood Cliffs, NJ: Prentice Hall.*

Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (2005). *Multivariate Data Analysis ,(6th ed), Prentice-Hall: Englewood Cliffs, N.J.*

Hair, J. F., Bush, R. P. and Ortinau, D. J. (2003). *Marketing Research Within a Changing Information Environment. New York, NY: McGraw-Hill.*

Hair, J. F., Ringle, C. M. and Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. *The Journal of Marketing Theory and Practice*, *19*(2), 139–152.

Hair, J., Hult, G. M. ., Ringle, C. M. and Sarstedt, M. (2014). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM).California: Sage Publication, Inc.*

Hair, J., Tatham, R., Anderson, R. and Black, W. (1998). *) Multivariate data analysis, (5th ed). Prentice Hall, Upper Saddle River, New Jersey.*

Hair et al. (2009). *Multivariate data Analysis:A global perspective,(7th ed).Upper Saddle:Prentice Hall,Print.*

Hanaysha, J. (2016). Examining the Effects of Employee Empowerment, Teamwork, and Employee Training on Organizational Commitment. *Procedia - Social and Behavioral Sciences*, *229*, 298–306.

Handfield, R. (2002). Applying environmental criteria to supplier assessment: A study in the application of the Analytical Hierarchy Process. *European Journal Of Operational Research*, *141*(1), 70–87.

Harris, R. and Trainor, M. (1995). Innovations and R & D in Northern Ireland Manufacturing : A Schumpeterian Approach. *Regional Studies*, *29*(7), 593–604.

Hart, S. L. (1995). A Natural-Resource-Based View of the Firm. *Academy of Management Review*, *20*(4), 986–1014.

Harter, J. K., Schmidt, F. L. and Hayes, T. L. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology*, *87*(2), 268–279.

Harwell, M. R. (2011). Research design in qualitative/quantitaive/mixed methods. In C. F. Conrad & R. C. Serlin (Eds.), The SAGE Handbook for Research in Education: Pursuing Ideas as the Keystone of Exemplary Inquiry. Thousand Oaks: Sage.

Hashim, S. Z., Zakaria, I. B., Ahzahar, N., Yasin, M. F. and Aziz, A. H. (2016). Implementation of green building incentives for construction key players in Malaysia. *International Journal of Engineering and Technology*, *8*(2), 1039–1044.

Hay, R., Stavins, R. and Vietor, RHK. (2005). Environmental protection and the social responsibility of firms: perspectives from law, economics and business, resources for the future. RFF Press, Washington.

Hayhurst, A., Saylor, C. and Stuenkel, D. (2005). Work environmental factors and retention of nurses. *Journal of Nursing Care Quality*, *20*(3), 283–8.

Healy, M. and Perry, C. (2000). Comprehensive criteria to judge validity and reliability of qualitative research within the realism paradigm. Qualitative Market Research. *An International Journal*, *3*(3), 118–126.

Helfat, C. E. (1997). Know-How And Asset Complementarity And Dynamic Capability Accumulation: The Case Of R&D. *Strategic Management Journal*, *18*(5), 339–360.

Heninger, J. (2011). Red & Black equals Green. How Green Cleaning Has Improved the Campus Environment, Worker Safety & the Bottom Line at UGA. *Facilities Officers Conference ,The University of Georgia*.

Hesselink, R. (2008). *Metro Health's Sustainable Strategies Improve Health and the Bottom Line. InThe Business of Green(pp.224-226). IFMA Foundation*.

Hill, R. and Bowen, P. (1997). Sustainable construction: Principles and a framework for attainment. *Construction Management & Economics*, *15*(3), 223-239.

Hitchcock, D. and Willard, M. (2006). The business guide to sustainability: practical strategies and tools for organizations , Earthscan Ltd., London, UK.

Hitt, M. A., L., Bierman, K., Shimizu and Kochhar, R. (2001). Direct and moderating effects of human capital on strategy and performance in professional service firms: a resource- based perspective. *Academy of Management Journal*, *44,* 13 – 28.

Ho, R. (2006). *Handbook Of Univariate And Multivariate Data Analysis And Interpretation with SPSS:Chapman & Hall/CRC Taylor &Francis Group. Chapman & Hall.*

Hodges, C. P. (2005). A facility manager's approach to sustainability. *Journal of Facilities Management*, *3*(4), 312–324.

Hodges, C. P. (2009). *Sustainability " How-To Guide " Series Getting Started.Ifma Foundation*.

Hoe, S. L. (2008). Quantitative Methods Inquires Issues and Procedures in Adopting Structural Equation Modeling Technique. *Journal of Applied Quantitative Methods*, *3*(1), 76–83.

Hooman, H. A. (2009). *"Structural equation modeling with LISREL application." Tehran: SAMT Publication*.

Hooper, D., Coughlan, J. and Mullen, M. (2008). Structural Equation Modelling : Guidelines for Determining Model Fit Structural equation modelling : guidelines for determining model fit. *Electronic Journal of Business Research Methods*, *6*(1), 53–60.

Hoskisson, R. E., Hitt, M. A. and Wan, W. P. (1999). Theory and research in strategic management: Swings of a pendulum. *Journal of Management*, *25*(3), 417–456.

Howell, J. M. and Shea, C. (2006). Effects of Champion Behavior, Team Potency, and External Communication Activities on Predicting Team Performance. *Group & Organization Management*, *31*(2), 180–211.

Hoyle, H. H. (2012). *Handbook of Structural Equation Modeling.Guilford Press*.

Hsu, J. J., Finkelstein, D. M. and Schoenfeld, D. A. (2015). Outcome-driven cluster analysis with application to microarray data. *PLoS ONE*, *10*(11), 1–15.

Hu, L. and Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives, Structural Equation

Modeling. *A Multidisciplinary Journal*, *6*(1), 1–55.

Hui, E. C. M. and Zheng, X. (2010). Measuring customer satisfaction of FM service in housing sector: A structural equation model approach. *Facilities*, *28*(5/6), 306–320.

Huizenga, C., Zagreus, L. and Arens, E. (2003). Measuring Indoor Environmental Quality : A Web-based Occupant Satisfaction Survey.

Humphreys, P. K., Wong, Y. K. and Chan, F. T. S. (2003). Integrating environmental criteria into the supplier selection process. *Journal of Materials Processing Technology*, *138*(1–3), 349–356.

Hung, S. Y., Chang, S. I., Yen, D. C., Kang, T. and Kuo, C. P. (2011). Successful implementation of collaborative product commerce: an organizational fit perspective. *Decision Support Systems, Vol.*, *50*(2), 501–510.

Hunt, S. (1991). (1991). *Modern Marketing Theory: Critical Issues in the Philosophy of Marketing Science, Cincinnati, Ohio: South-West Publishing Co.*

Hwang, B.-G. and Lim, E.-S. J. (2013). Critical Success Factors for Key Project Players and Objectives: Case Study of Singapore. *Journal of Construction Engineering and Management*, *139*(March), 1–12.

Idaho. (2006). H2E 10 Step Guide to Green Cleaning Implementation. Lyme, NH: Idaho Department of Environmental Quality.

Ika, L. A. (2012). Project Management for Development in Africa: Why Projects Are Failing and What Can Be Done about It. *Project Management Journal, 43*(4), 27–41.

Ika, L. A., Diallo, A. and Thuillier, D. (2010). Critical success factors for World Bank projects: An empirical investigation. *International Journal of Project Management*, *30*(1), 105–116.

Inkoom, E. E. (2012). *Sustainability Adoption In Construction Organizations-An Institutional And Strategic Choice Perspective.* PhD Thesis, National University, Singaopre.

Inmyxai, S. and Takahashi, Y. (2010). The Effect of Firm Resources on business Performance or Male- and Female- Headed Firms in the Case of Lao Micro-, Small- and Medium-Sized Enterprises. *International Journal of Business and Information*, *5*(1), 63–90.

Iskandar Regional Development Authority. (2015). Flagship A: Johor Bahru City. Iskandar Malaysia. Archived from the original on 27 July 2015.

Ismail, B. L. (2012). *An evaluation of the implementation of Total Quality Management (TQM) within the construction sector in the United Kingdom and Jordan.* PhD Thesis, University of Huddersfield.

ISSA. The Cleaning Industry Management Standard (2006).

Izran, S. M., Nurul, N. Z., Shardy, Shardy, A., Woon, N. B. and Ramli, N. A. (2014). Critical Factors That Lead To Green Building Operations and Maintenance. *Theoretical and Empirical Researches in Urban Management, 9*(2), 68–86.

Jaakkola, J. J. K. and Knight, T. L. (2008). The role of exposure to phthalates from polyvinyl chloride products in the development of asthma and allergies: A systematic review and meta-analysis. *Environmental Health Perspectives*, *116*(7), 845–853.

Jagarajan, R. (2015). *A Structured Critical Success Factors Model for the Implementation of Green Retrofit Projects. PhD Thesis, Universiti Teknologi Malaysia, skudai.*

Jagarajana, R., Asmonib, M. N. A. @ M., Leeb, J. Y. and Jaafara, M. N. (2015). An Overview of Green Retrofitting Implementation in Non Residential Existing

Buildings. *Jurnal Teknologi*, *73*(5), 85–91.

James, W. A., Cristina, F. Y. and Cartner, T. (2008). *Evaluating Effects of an Alcohol-based Hand Sanitizer Hand Hygiene Program on Employee Absenteeism. In The Business of Green Cleaning (pp.165-169). Ifma Foundation.*

Jehanzeb, K. and Beshir, .A. (2013). Training and Development Program and Its Benefits to Employee Organization: A Conceptual Study. *European Journal of Business and Management, 5*, 243–252.

Jonker, J. and Pennink, B. (2010). *The Essence of Research Methodology: A Concise Guide for Master and PhD Students in Management Science. Heidelberg London: Springer.*

Jöreskog, K. and Sörbom, D. (1989). Efficient Estimation In Image Factor Analysis. *Psychometrika*, *34*(1), 51–75.

Jöreskog, K. and Sörbom, D. (1993). *LISREL 8: Structural Equation Modeling with the SIMPLIS Command Language. Chicago, IL: Scientific Software International Inc.*

Joshi, S. M. (2008). The sick building syndrome.. *Indian Journal of Occupational and Environmental Medicine*, *12(2)*, 61–64.

Jun, M., Cai, S. and Shin, H. (2006). TQM practice in maquiladora: antecedents of employee satisfaction and loyalty. Journal of Operations Management , 24, 791-812.

Kaiser, H. (1970). A Second Generation Little Giffy. Psychometrika, *35*(4), 401-415.

Kaiser, H. F., and Rice, J. (1974). Little jiffy, mark IV. *Educational and psychological measurement, 34(1),* 111-117.

Kalinoski, J. M., Joel, A. and Scd, T. (2009). The Challenges and Opportunities of Implementing Safer " Greener " Cleaners in Institutional Settings at Local Levels Conducted. The University of Massachusetts at Lowell Concord Health Department , MA.

Kamaruzzaman, S.-N., Myeda, N. E. and Pitt, M. (2013). Performance Levels of High-Rise Private Office Buildings Maintenance Management in Malaysia *Maintenance and Reliability, 15*(2), 111–116.

Kandelousi, N., Ooi, J, and Abdollahi, A. (2011). Key success factors for managing projects. *International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering*, 5(11), 1292–1296.

Kaplan, D. (2009). *Structural equation modelling: Foundations and extensions (2nd ed.). Thousand Oaks: Sage Publications Inc.*

Kapur, A., Baldwin, C., Swanson, M., Wilberforce, N., McClenachan, G. and Rentschler, M. (2012). Comparative life cycle assessment of conventional and Green Seal-compliant industrial and institutional cleaning products. *International Journal of Life Cycle Assessment*, *17*(4), 377–387.

Kats, G. (2006). Greening America ' s Schools: Costs and Benefit available at http://www.usgbc.org/Docs/Archive/General/Docs2908.pdf.

Kaynak, H. (2003). The relationship between total quality management practices and their effects on firm performance. *Journal of Operations Management*, *21*(4), 405–435.

Kearns, G. S. and Sabherwal, R. (2007). Antecedents and consequences of information systems planning integration. *IEEE Transactions on Engineering Management*, *54*(4), 628–643.

Ketter, P. (2008). What's the Big Deal About Employee Engagement? *T AND D*, *62*(1), 44.

Khalfan, M. (2002). *Sustainable Development and Sustainable Construction . Department of Civil Engineering, Loughborough University*.

Khamidi, M. F., Lateef, O. A. and Idrus, A. (2010). Building Maintenance: A Path Towards Sustainability. *Malaysian Construction Research Journal*, *7*(2), 47–59.

Khan, K. U., Farooq, S. U. and Ullah, M. I. (2010). The relationship between rewards and employee motivation in commercial banks of Pakistan. *Research Journal of International Studies, 14*, 37–52.

Khan, M. T. (2015). Development of Human Capital Through Institution of Islamic Waqf. *International Journal of Information, Business and Management*, *7*(3), 1–12.

Khan, S., Zarif, T. and Khan, B. (2011). Effects of Recognition-Based Rewards on Employees' Efficiency and Effectiveness. *Journal of Management and Social Sciences*, *7*(2), 1–7.

Kibert, C. J. (2012). *Sustainable construction: Green building design and delivery. Hoboken, New Jersey: John Wiley & Sons*.

King County O and M Guidelines. (2008). *King County Facilities Green Operations & Maintenance Guidelines Handbook,Seattle: Green Tools.*

Kinnear, M. and Gray, C. . (2009). *SPSS 16 made Simple.1st ed. Hove: Psychology press*.

Klassen, R. and Whybark, D. C. (1999). Environmental Management in Operations: The Selection of Environmental Technologies. *Decision Sciences*, *30*(3), 601–631.

Kleindorfer R., P., Singhal, K., & Wassenhove, L. N. (2005). Sustainable Operations Management. *Production and Operations Management*, *14*(4), 482–492.

Kline, R. B. (2005). *Principles and practice of structural equation modelling (2nd ed.). New York: Guildford Publications Inc.*

Kline, R. B. (2010). *Principles and Practice of structural equation modelling (3rd ed.). New York: Guilford Press.*

Kline, R. B. (2011). *Principles and practice of structural equation modeling:New York: Guilford Press Google Scholar. Structural Equation Modeling*, 156.

Kline, R. B. (2013). Exploratory and confirmatory factor analysis. Applied quantitative analysis in the social sciences.

Klungseth, N. J. (2015). *Cleaning services in local authorities. PhD thesis, Norwegian University of Science and Technology.*

Klungseth, N. J. and Olsson, N. O. E. (2013). Norwegian cleaning research: an overview and categorization. *Facilities*, *31*(7), 290–313.

Kock, N. and Kock, N. (2015). Hypothesis testing with confidence intervals and P values Hypothesis testing with confidence intervals and P values.Laredo, TX:Warp Sysrems.

Kohls, J. (2010). *Why green cleaning makes "cents" for sustainable facilities . Retrieved from Plymouth, MN:*

Kohls, J. (2011). Why Green Cleaning Makes "Cents" for Sustainable Facilities. *New Equipment Digest*, *76*(5), 17–20.

Koplin, J., Seuring, S. and Mesterharm, M. (2007). Incorporating sustainability into supply management in the automotive industry - the case of the Volkswagen AG. *Journal of Cleaner Production*, *15*(11–12), 1053–1062.

Koukiasa, M. (2011). Sustainable facilities management within event venues. *Worldwide Hospitality and Tourism Themes*, *3*(3), 217–228.

Krauss, S. (2005). Research Paradigms and Meaning Making : A Primer. *The Qualitative Report*, *10*(4), 758–770.

Kravits, R. (2006). Green Cleaning's Roots.

Kronos Consulting and Mercer LLC. (2008). The Total Financial Impact of Employee Absences Survey Highlights. Retrieved from http://www.fmlainsights.com/wp-content/uploads/sites/311/2011/09/mercer-survey-highlights1.pdf

Kumar, R. (2006). *Ergonomic Evaluation and Design of Tools in Cleaning Occupation.* PhD Thesis, Luleå University of Technology, Luleå, Sweden.

Lacy, P., Cooper, T., Hayward, R. and Neuberger, L. (2010). *A new era of sustainability. UN Global Compact, Accenture.*

Lam, K. C. (2007). Design for Maintenance from the Viewpoint of Sustainable Hospital Buildings. *The Australian Hospital Engineer.* 30(1): 30-34.

Lamba, S. and Choudhary, N. (2013). Impact of Hrm Practices on Organizational Commitment of Employees. *Interntaional Journal of Advancement in Research and Advancement*, *2*(4), 407–423.

Lateef, O. A. (2009). Building maintenance management in Malaysia. *Journal of Building Appraisal*, *4*(3), 207–214.

Laura, J. B. and Stephanie, M. M. (2011). Survey Instrument Validity Part 1:Principles of Survey Instrument Development and validation in Athletic Training educaation Research. *Athletic Training Educational Journal*, *6*(1), 27–35.

Leaman, A., Thomas, L. and Vandenberg, M. (2007). Green Buildings: What Australian Building Users are saying. EcoLibrium.

Lee, C., Lee, K. and Pennings, J. M. (2001). Internal capabilities, external networks, and performance: A study on technology-based ventures. *Strategic Management Journal*, *22*(6–7), 615–640.

Lee, H. W. (2011). An Application of Latent Variable Structural Equation Modeling For Experimental Research in Educational Technology. *TOJET: The Turkish Online Journal of Educational Technology*, *10*(1), 15–23.

Lee, S. J., Nam, B., Harrison, R. and Hong, O. (2014). Acute symptoms associated with chemical exposures and safe work practices among hospital and campus cleaning workers: A pilot study. *American Journal of Industrial Medicine*, *57*(11), 1216–1226.

Lee, S. Y. (2009). *Impacts of organizational resources on agency performance: Evidence from Federal Agencies*. PhD Thesis, University of Georgia.

Lee, Y. S. and Kim, S. K. (2008). Indoor Environmental Quality in LEED-Certified Buildings in the U.S. *Journal of Asian Architecture and Building Engineering*, *7*(November), 293–300.

Leech, N. ., Barrett, K. C. and Morgan, G. A. (2015). *Multiple Regression (Chapter 6). In IBM SPSS for Intermediate Statistics: Use and Interpretation (5th ed, pp. 109 – 143). New York: Routledge.*

Leech, N. L., Barrett, K. C. and Morgan, G. A. (2005). *SPSS for Intermediate Statistics: Use and Interpretation.Psychology Press*.

LEED: EBOM. (2009). *LEED Reference Guide for Green Building Operations and Maintenance. Washington, DC: U.S Green Building Council*.

Leonard, R. and Krilov, M. . (1996). Impact Of An Infection control Program In A Specialized Preschool,. *American Journal of Infection Control*, *24*, 167–173.

Lepkova, N. and Žūkaitė-Jefimovienė, G. (2012). Study on Customer Satisfaction with Facilities Management Services in Lithuania. *Slovak Journal of Civil Engineering*, *XX*(4), 1–16.

Leppel, K., Brucker, E., & Cochran, J. (2012). The importance of job training to job satisfaction of older workers. *Journal of Aging & Social Policy, 24(1), 62-76,*

Lewis, B. R. and Byrd, T. A. (2003). Development of a measure for the information technology infrastructure construct. *European Journal of Information Systems*, *12*(2), 93–109.

Li, H. and Atuahene-Gimau, K. (2001). Product Innovation Strategy and the Performance of New Technology Ventures in China. *Academy, The Journal, Management*, *44*(6), 1123–1134.

Lichtenstein, B. M. B. and Brush, C. G. (2001). How Do "Resource Bundles" Develop and Change in New Ventures? A Dynamic Model and Longitudinal Exploration. *Entrepreneurship Theory & Practice, 25*(3), 17–36.

Liebowitz, J. (2010). The Role of HR in Achieving a Sustainability Culture. *Journal of Sustainable Development*, *3*(4), 50–57.

Lincoln, Y and Guba, E. (1985). Naturalistic inquiry. Thousand Oaks, CA: Sage. *Research Methods in the Social Sciences*.

Liobikienė, G., & Mandravickaitė, J. (2011). Achievements of Lithuanian Sustainable Development During the Integration Process into the European Union. *Technological and Economic Development of Economy*, *17*(1), 62–73.

Liu, A. M. M. (1999). A research model of project complexity and goal commitment effects on project outcome. *Engineering Construction & Architectural Management (Wiley-Blackwell)*, *6*(2), 105–111.

Liu, X. (2011). Assessing Measurement Invariance of the Teachers ' Perceptions of Grading Practices Scale across Cultures. *International Journal of Humanities and Social Science*, *1*(20), 70–80.

Loftness, V. V., Hartkopf, B., Gurtekin, Y., Hua, M., Qu, M., Snyder, Y. and Gu, X. Y. (2005). *Building Investment Decision Support (BIDS TM): Cost-Benefit Tool to Promote High Performance Components, Fl exible Infrastructure and Systems Integration for Sustainable Commercial Buildings and Productive Organizations. Carnegie Mellon Universit y, Center for Building Performance and Diagnostics*. Pittsburgh, PA.

Lu, H., While, A. E. and Barriball, K. L. (2005). Job satisfaction among nurses -- a literature review. *International Journal of Nursing Studies*, *42*(2), 211–27.

Lucas, M. T. (2009). Understanding Environmental Management Practices: Integrating Views from Strategic Management and Ecological Economics. *Business Strategy and the Environment*, *19*(8), 543–556.

Luckas, B., Hair, J. and Ortinau, D. (2004). *Marketing research. North Ryde, N.S.W: McGraw-Hill.*

Maak, T. (2007). Responsible leadership, stakeholder engagement and social capital. *Journal of Business Ethics*, *74*(4), 329–343.

Madsen, T. K. (1989). 1989),"Successful Export Marketing Management: Some Empirical Evidence." *International Marketing Review*, *6*(4), 41–57.

Mahler, D., Barker, J., Belsand, L. and Schulz, O. (2009). "Green" Winners: The performance of sustainability-focused companies during the financial crisis.Chicago: A.T. Kearney, Inc.

Main, K. M., Mortensen, G. K., Kaleva, M. M., Boisen, K. A., Damgaard, I. N., Chellakooty, M. and Skakkebæk, N. E. (2006). Human breast milk contamination with phthalates and alterations of endogenous reproductive hormones in infants three months of age. *Environmental Health Perspectives*, *114*(2), 270–276.

Mair, P., De Leeuw, J. and and Groenen, P. J. (2015). *Multidimensional scaling in R: smacof Technical report.*

Malaysian Association of Cleaning Contractors[MACC]. (2012). Losing out, big time. *The Star Online*.

Malaysian Employers Federation, MEF (2014): Absent employees costing Malaysian firms over RM6b annually - at: http://www.themalaymailonline.com/malaysia/article/mef-absent- employees-costing-malaysian-firms-over-rm6b-annually#sthash.tiaDpqOF.dpuf. (2014).

Malhotra, N. K., Agarwal, J. and Peterson, M. (1996). Methodological issues in cross-cultural marketing A state-of-the-art review. *International Marketing Review*, *13*(5), 7–43.

Malla, K. (2012). *Service Quality and Customer Satisfaction At Iss Faciltiy Service Company (Cleaning Service)*.

Mallett-Hamer, B. (2005). *Communication within the workplace. (Master of Science), University of Wisconsin-Stout.*

Manasan, R. G. and Parel, D. (2014). The need (or not) for fiscal incentives. *Policy Notes*, *18*.

Manicas, P. and Secord, P. (1982). Implications for psychology of the new philosophy of science. American Psychologist, 38, 390-413.

Manusia, K. S. (2012). *Occupational Analysis Automatic Industry Department of Skills Development*.

Markham, S. and Griffin, A. (1998). The breakfast of Champions:Association Between Champions and Produvt Development Environments,Practices and performance. *Journal of Product Innovation Management.*, *15*, 436–454.

Markkanen, P., Quinn, M., Galligan, C. and Bello, A. (2009). *Cleaning in healthcare facilities: Reducing human health effects and environmental impacts. Health Care Research Collaborative Paper Series. Lowell Center for Sustainable Production. Lowell, MA: University of Massachuset*.

Marsh, H., Balla R, J. and McDonald, P. R. (1988). Goodness-of-fit indexes in confirmatory factor analysis: The effect of sample size. *Psychological Bulletin*, *103*, 391–410.

Marshall, J. P. and Wilcox, H. (2015). *How Green and Does it Clean : Methodologies for Assessing Cleaning Products for Safety and Performance*. *Developments in Surface Contamination and Cleaning* (Vol. 8).

Mat Naim Bin Abdullah @ Mohd Asmon. (2012). *A Structured Critical Success Factors Model For Implementing Project Quality Management System In Construction. Phd Thesis, Universiti Teknologi Malaysia, Skudai*.

Maxwell, L. E. (2000). Noise in the Office Workplace. *Facility Planning and Management Notes. Cornell Cooperative Extension*.

May, D. and Pitt, M. (2012). Environmental cleaning in UK healthcare since the NHS Plan: A policy and evidence based context. *Facilities*, *30*(1/2), 6–22.

McClelland, S. B. (1994). Training Needs Assessment Data-gathering Methods: *Journal of European Industrial Training*, *18*(1), 22–26.

McComb, S. A., Kennedy, D. M., Green, S. G., Compton, W. D. and McComb, S. A. (2008). Project team effectiveness: The case for sufficient setup and top management involvement. *Prod. Plan. Control, 19*(4), 301–311.

McGraw-Hill Construction. (2011). *Green outlook 2011: Green trends driving growth. Referenced in< http://www. usgbc. org/articles/green-building-facts*. Retrieved from http://aiacc.org/wp-content/uploads/2011/06/greenoutlook2011.pdf

Meek, J. (2013). Sustainability , Meet Green Cleaning

Michaels, A. (2009). Reasons For High Staff Turnover.

Migdalia, R. T. (2015). *Cleaning and Eating Green : A Review of Local Restaurants Using Green Cleaning Products.* Masters thesis, Tufts University.

Miles, M. B and Huberman, A. M. (1994). *Data management and analysis methods.Thousand Oaks, CA,. Sage.*

Minnesota Department of Health. (2008). Cleaning, Indoor Environmental Quality and Health: A Review of the Scientific Literature.

Mitchell, T. R., Holtom, B. C. and Lee, T. W. (2001). How to keep your best employees: Developing an effective retention policy. *Academy of Management Executive*, *15*(4), 96–108.

Mohd-Majid, K. (1990). Research Methods in Education. Kuala Lumpur:Bahasa & Pustaka.

Mohsen, T. and Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, *2*, 53–55.

Mojtehedzadeh, S. (2014). Hotel workers protest Sheraton Centre's "green" program. *The Star.com.*

Mollenkamp, B. (2007). *Mollenkamp, Becky (2007). Turnover.CleanLink available at www.cleanlink.com/cp/article/Turnover--6327.*

Montgomery, J. D. (2006). *The relationship between training and retention in a volunteer organization.* PhD Thesis, Auburn University Auburn, Alabama.

Morgan, N. A., Kaleka, A. and Katsikeas, C. S. (2004). Antecedents of Export Venture Performance: A Theoretical Model and Empirical Assessment. *Journal of Marketing*, *68*(January), 90–108.

Morgan, T. L. (2012). *An Examination Of Project Managers' Leadership Contribution to Project Success Using Critical Success Factor. Ph.D. Thesis, Capella University, UMI 3498739.*

Moutinho, L. and Huarng, K. (2015). *Quantitative Modelling in Marketing and Management. World Scientific.*

Myeda, N. E., Kamaruzzaman, S. N. and Pitt, M. (2011). Assessing the Maintenance Aspect of Facilities Management through a Performance Measurement System: A Malaysian Case Study. In *Paper presented at the The 2nd International Building Control Conference.*

Nachtigall, C., Kroehne, U., Funke, F., & Steyer, R. (2003). Why should we use SEM? Pros and cons of structural equation modeling. *Methods of Psychological Research*, *8*(2), 1–22.

Nahapiet, J. and Ghoshal, S. (1998). Social Capital , Intellectual Capital , and the Organizational Advantage Janine Nahapiet ; Sumantra Ghoshal. *The Academy of Management Review*, *23*(2), 242–266.

Naoum, S. (2007). *Dissertation Research and Writing for Construction Students (2nd ed.). Oxford: Butterworth-Heinemann.*

Naqvi, I. H. and Aziz, S. (2011). The impact of stakeholder communication on project outcome. *African Journal of Business Mnagement*, *5*(14), 5824–5833.

Natasha, K., Nawawi, A. H., Hashim, A. E. and Husin, H. N. 2008. Performance Analysis of Government and Public Buildings Via Post Occupancy Evaluation. *Asian Social Science*. 4(9), 103-112

Nation Master Statistics. (2013). *CO 2 Emission by Country. Available at: http:/ www.nationmaster.com.*

Nazaroff, W. W., Coleman, B. K., Destaillats, H., Hodgson, A. T., Liu, D. L., Lunden, M. M. and Weschler, C. J. (2006). *Indoor air chemistry: cleaning agents, ozone and toxic air contaminants. Berkeley, CA: Air Resources Board, California Environmental Protection Agency.*

Nazaroff, W. W. and Weschler, C. J. (2004). Cleaning products and air fresheners: exposure to primary and secondary air pollutants. *Atmospheric Environment*,

38(18), 2841–2865.

Nazaroff, W. W. and Weschler, C. J. (2004). Cleaning products and air fresheners: Exposure to primary and secondary air pollutants. *Atmospheric Environment*, *38*(18), 2841–2865.

NEA. (2015). Cleaning Industry:Raising Standards, Productivity and Professionalism. *National Environment Agency, Singapore*.

Neely, A., Filippini, R., Forza, C., Vinelli, A. and Hii, J. (2001). A framework for analysing business performance, firm innovation and related contextual factors: perceptions of managers and policy makers in two European regions. *Integrated Manufacturing Systems*, *12*(2), 114–124.

Nelson, B. (2005). *1001 Ways to Reward Employees (2nd ed.), New York: Workman Publishing*.

Netemeyer, R. G. and Bearden, W. O. et al. (2003). *Scaling Procedures: Issues and Applications. London, Sage*.

Neuman, W. L. (1997). *Social research methods, qualitative and quantitative approaches (3rd ed.). Boston: Allyn and Bacon.*

Neuman, W. L. (2006). *Social Research Method: Qualitative and Quantitative Approaches (6th ed.). Boston: Pearson.*

Neuman, W. L. (2011). *Social Research Methods: Qualitative and Quantitative Approaches, (7th ed), Pearson/Allyn and Bacon, Boston. Social Research Methods: Qualitative and Quantitative Approaches*.

Njoroge, J. G. (2015). *Organizational resources and performance of mobile phone companies Approaches, in Kenya*. PhD Thesis, Kenyatta University.

Nguyen, L. D., Ogunlana, S. O. and Lan, D. T. X. (2004). A study on project success factors in large construction projects in Vietnam. *Journal of Operations Management*, *11*(6), 404–413.

NHO Service. (2009). "Professional cleaning. Success Factors for Establishment and Operation ", National Federation of Service Industries, Oslo, Norway.

Nik Mat, N. E. M., Kamaruzzaman, S. N. and Pitt, M. 2011. Assessing the Maintenance Aspect of Facilities Management through a Performance Measurement System: A Malaysian Case Study. The 2nd International Building Control Conference.

Nilfisk-Advance. (2008). *Case History:Green Cleaning*.

Nilsen, S. K., Dahl, I. E., Kristiansen, T. H., Brønstad, B. O. and Høstmark, A. G. (2008). Best Practice Cleaning –Reducing Costs, Waste And Use Of Chemicals By Introducing A Modern Cleaning Concept. In *Sustainable Buildings 2008, 21-25th September 2008 in Melbourne* (Vol. 21–25th Se, pp. 110–117).

NOU. (1993). *About cleaning team. Norwegian Public Report, Ministry of Local Government and Labor, Government Administration, Section of the State Printing, Oslo, Norway.*

Nunnally, C., J. (1978). *Psychometric Theory. 2nd ed. New York: McGraw-Hill.*

Nunnally, J. C. and Bernstein, I. H. (1994). The assessment of reliability,psychometric theory. *Psychometric Theory*.

NYSED. (2010). *Environmentally Sensitive Cleaning and Maintenance Report School Impact Report Pursuant to Chapter 584 of the Laws of 2005*. Newyork.

Nyunling, P. and Cheung Chan, M. (2007). Study on noise perception and distraction in office. *Proceedings of International Association of Societies of Design Research, Hong Kong*

O 'Tooie, J. and Lawler III, E. E. (2008). How American Corporations Can Succeed in the 21st Century. *People and Strategy*, *31*(4), 26–33.

Occupational Safety and Health Administration (OSHA) & National Institute for Occupational Safety and Health (NIOSH). (2012). Osha • niosh. *INFOSHEET*. 1–4.

Ofer, Z. (2007). Top management involvement in project management. *Manag. Proj. Bus.*, *1*(3).

Ofori, G. (2000). Greening the construction supply chain in Singapore. *European Journal of Purchasing and Supply Management*, *6*(3), 195–206.

Ohrling, T. (2014). Increased Participation Among Cleaners as a Strategy to Improve Quality and Occupational Health. *Nordic Journal of Working Life Studies*, *4*(3), 79–98.

Okada, K. and Lee, M. D. (2016). A Bayesian Approach to Modeling Group and Individual Differences in Multidimensional Scaling. *Journal of Mathematical Psychology*, *70*, 35–44.

Okumura, K. (2009). The Use of Third-Party Review to Reduce Health and Environmental Hazards from Surfactants and Cleaning Products in the Janitorial Industry. *Journal of Environmental Health*, *71*(9), 20–23.

Olaniyan, D. A. and Ojo, L. B. (2008). Staff Training and Development: A Vital Tool for Organisational Effectiveness. *European Journal of Scientific Research*, *24*(3), 1450–216.

Ontario Ministry of Education. (2010). Green Clean Program Resource Guide.

Oppenheim, A. N. (1992). *Questionnaire Design, Interviewing and Attitude Measurement.London: Pinter Publishers*.

Orlitzky, M., Schmidt, F. L. and Rynes, S. L. (2003). Corporate Social and Financial Performance : *Organizational Studies*, *24*(3), 403–441.

Osarenkhoe, A. (2009). An integrated framework for understanding the driving forces behind non-sequential process of internationalisation among firms. *Business Process Management Journal*, *15*(2), 286–316.

Owens, K. A., Halfacre-Hitchcock, A. (2006). As green as we think? The case of the College of Charleston green building initiative. *International Journal of Sustainability in Higher Education*, *7*(2), 114–128.

Pallant, J. (2007). *SPSS Survival Manual.A guide by Step Guide to Data Analysis using SPSS Window(3rd ed).England:Open University Press McGraw Hill. Journal of Advanced Nursing*.

Pallant, J. F. (2013). *SPSS survival manual: a step by step guide to data analysis using SPSS for Windows . Allen & Unwin*.

Palmer, W. (2012). "Incentive and Disincentive: Will They Affect Performance.", 2012. Perry, J. L., D. Mesch, *et al.* ,"Motivating Employee in New Governance Era: The Performance Paradigm Revisited", 2011., 2012.

Papke-Shields, K. E., Beise, C. and Quan, J. (2010). Do project managers practice what they preach, and does it matter to project success? *International Journal of Project Management*, *28*(7), 650–662.

Park, H.A. (2013). An Introduction to Logistic Regression : From Basic Concepts to Interpretation with Particular Attention to Nursing Domain. *Jornal of Korean Academic Nurse*, *43*(2), 154–164.

Partington, D. (2002). *Essential Skills for Management Research. 1 st Edition. SAGE*.

Passarelli, G. R. (2009). Sick building syndrome: An overview to raise awareness. *Journal of Building Appraisal*, *5*(1), 55–66.

Patel, S., Padh, H. and Bhavsar, C. (2013). "MANOVA over ANOVA" A Better Objective in Bioequivalence Study. *Int J Pharm Sci Res*, *4*(5), 1874–1884.

Patton, M. (2001). *Qualitative Research and Evaluation Method, (3rd ed). Thousand*

Oaks, CA: Sage.

Peat, J. and Barton, B. (2005). *Medical statistics : a guide to data analysis and critical appraisal.Blackwell Publishing.*

Pelzeter, A. and May, M. (2012). Key performance Indicators for Sustainability in facilities Management. In *European facilities management Conference*.

Peng, M. W. (2009). *Global strategy. Cengage learning.*

Penrose, E. T. (1959). *The Theory of the Growth of the Firm , Basil Blackwell, Oxford. Reprinted 1995, Oxford University Press, Oxford.*

Percy, S. and Lubchencho, J. (2005). *Millennium ecosystem assessment- Ecosystems and human well-being: opportunities and challenges for business and industry, World resources institute, Washington D.C.*

Perron, G. M., Côté, R. P. and Duffy, J. F. (2006). Improving environmental awareness training in business. *Journal of Cleaner Production*, *14*(6–7), 551–562.

Peter, J. P. (1979). Reliability: A Review of Psychometric Basics and Recent Marketing Practices. *Journal of Marketing Research*, *16*(1), 6–17.

Peteraf, M. A. (1993). The Cornerstones of Competitive Advantage: A Resource-Based View Margaret. *Strategic Management Journal*, *14*(3), 179–191.

Petrini, M. and Pozzebon, M. (2009). Managing sustainability with the support of business intelligence: Integrating socio-environmental indicators and organisational context. *Journal of Strategic Information Systems*, *18*(4), 178–191.

Petrini, M. and Pozzebon, M. (2010). Integrating sustainability into business practices: Learning from Brazilian firms. *BAR - Brazilian Administration Review*, *7*(4), 362–378.

Pett, M. A., Nancy, R., Lackey. and Sullivan, J. J. (2003). *Making Sense of Factor Analysis: The Use of Factor Analysis for Instrument Development in Health Care Research.California, Sage Publications Inc*.

Phua, F. T. T. (2004). Modelling the determinants of multi-firm project success: a grounded exploration of differing participant perspectives. *Construction Management and Economics*, *22*(5), 451–459.

Pinto, J. K. and Slevin, D. P. (1987). Critical Factors In Successful Project Implementation. *Engineering Management, IEEE Transactions*, *34*(1), 167–190.

Piper, J. (2004). *Handbook of facility assessment. The Fairmont Press, Inc.. Buildings.*

Piper, J. (2008). Launching a Green Cleaning Program. *Building Operating Management.*

Pitts, J. and Mychele R. L. (2007). Existing Buildings : It ' s Easier Than You Think to Green the Triple Bottom Line Existing Buildings : It ' s Easier Than You Think to Green the Triple Bottom. *Cornell Real Estate Review*, *5*(9), 80–91.

PMBOK. (2013). *A Guilde to The Project Management Body of Knowledge.(5th Ed). Project Management Institute. PA, USA*.

Porter, M. E., & Kramer, M. R. (2006). Stategy and Society: The link between competitive advantage and corporate social responsibility. *Harvard Business Review*, (December), 78–92.

Porter, M. and van der Linde, C. (1995). Green and competitive: ending the stalemate. *Harvard Business Review*, (September–October), 120–133.

Prabhakar, G. P. (2008). What is Project Success : A Literature Review. *International Journal of Business and Management*, *3*(9), 3–10.

Prahalad, C. K. and Hamel, G. (1990). The Core Competence of the Corporation. *Harvard Business Review*, *68*(May-June), 79–91.

Price, J. I. (2001). Reflections on the determinants of voluntary turnover. *International Journal of Manpower*, *22*(7), 2001.

Punch, K. (1998). *Introduction to Social Research:Quantitative and Qualitative Methods, London:Sage*.

Quan, X., Joseph, A. and Jelen, M. (2011). Green Cleaning in Healthcare : Current Practices and Questions for Future Research. *Journal of Occupational and Environmental Medicine*, *45*(5), 556–563.

Quan, X., Joseph, A. and Jelen, M. (2012). *Green cleaning in healthcare : Moving toward a systematic approach. Healthcare Design; ProQuest Central,* 12.

Quinn, M. M., Fuller, T. P., Bello, A. and Galligan, C. J. (2006). Pollution prevention--occupational safety and health in hospitals: alternatives and interventions. *Journal of Occupational and Environmental Hygiene*, *3*(4), 182–193.

Radhakrishna, R. B. (2007). Tips for developing and testing questionnaires/instruments. *Journal of Extension*, *45*(1), 1–4.

Ramakrishnan, P., Haron, H. and Goh, Y.-N. (2015). Factors Influencing Green Purchasing Adoption For Small And Medium Enterprises (SMEs) in Malaysia. *International Journal of Business and Society*, *16*(1), 39–56.

Ramli, N. A., Zawawi, E. M., Arif, N. R. M., Mahbob, N. S., Sulaiman, Z. and Zainol, N. N. (2018). A perspective study on green cleaning for Malaysian public hospital. *In IOP Conference Series: Earth and Environmental Science* (117)1, 012017. IOP Publishing.

RAMP. (2010). *Breathing Easier : School Districts Make the Switch to Certified Green Cleaning Products California school districts*.

Ranganathan, J. (1998). Sustainability rulers: measuring corporate environmental and social performance.Washington, D.C: World Resource Institute.

Rao, P. and Holt, D. (2005). *Do green supply chains lead to competitiveness and economic performance? International Journal of Operations & Production Management*, 25.

Rapp, A., Trainor, K. J. and Agnihotri, R. (2010). Performance implications of customer-linking capabilities: Examining the complementary role of customer orientation and CRM technology. *Journal of Business Research*, *63*(11), 1229–1236.

Rea, L. M. and Richard, A. P. (2005). *Designing and Conducting Survey Research:A Comprehensive Guide:Third ed. United States of America: Jossey-Bass, A Wiley Imprint*.

Reed, P. and Wu, Y. (2013). Logistic regression for risk factor modelling in stuttering research. *Journal of Fluency Disorders*, *38*(2), 88–101.

Reed, R. G. and Wilkinson, S. J. (2005). The Increasing Importance of Sustainability for Building Ownership. *Journal of Corporate Real Estate*, *7*(4), 2005.

Reid, G. C. and Smith, J. A. (2000). The impact of contingencies on management accounting system development. *Management Accounting Research*, *11*(4), 427–450.

Reitze Jr, A. W. and Carof, S.L. (1998). The legal control of indoor air pollution. *Boston College Environmental Affairs Law Review*, *25*(2), 247–345.

Remenyi, D. (2000). *Doing research in business and management : an introduction to process and method, Reprint edn, Sage, London.*

Report., D. C. B. (2008). *Review of the health of the working age population.*

Rice, B. (2010). Benefits of hazard reduction not limited to OHS compliance. *Professional Updates Management*, 693–695.

Ries, R., Bilec, M. M., Gokhan, N. M. and Needy, K. L. (2006). The economic benefits of green buildings: a comprehensive case study. *The Engineering Economist*, *51*(3).

Riese, G. (2010). Variety and Service Highlight the 2010 Effective and Innovative Practices Award Winners. *Facilities Manager*, *26*(5), 28–36.

Robins, J. and Wiersema, M. F. (1995). A resource-based approach to the multibusiness firm: Empirical analysis of portfolio interrelationships and corporate financial performance: *Strategic Management Journal*, *16*, 277–299.

Robinson, J. (2004). Squaring the circle? Some thoughts on the idea of sustainable development. *Ecological Economics*, *48*(4), 369–384.

Robson, C. (2002). Real World Research (2nd Edition). Great Britain: Blackwell.

Rockart, J. F. (1979). Chief executives define their own data needs [MIS]. *Harvard Business Review*, *57*(2), 81.

Rockström, J., Steffen, W., Noone, K., Persson, A., Chapin, F. S., Lambin, E. F and Foley, J. A. (2009). A safe operating space for humanity. *Nature*, *461*(7263), 472–475.

Roehl, W. S. (1999). Training and its Impact on Organizational Commitment among Lodging Employees. *Journal of Hospitality & Tourism Research*, *23*(2), 176–194.

Rondeau, E. P., Brown, R. K. and Lapides, P. D. (2006). Facility Management.Wiley.

Roster, C. A., Rogers, R. D., Hozier, G. C., Baker, K. G. and Albaum, G. (2007). Management of Marketing Research Projects: Does Delivery Method Matter Anymore in Survey Research? *The Journal of Marketing Theory and Practice*, *15*(2), 127–144.

Rumchev, K., Spickett, J., Bulsara, M., Philips, M. and Stick, S. 2004. Association of Domestic Exposure to Volatile Organic Compounds with Asthma in Young Children. *Thorax*. 59: 746-751.

Rumelt, R., Schendel, D. and Teece, D. (1994). Fundamental Issues in Strategy. A Research Agenda. Cambridge, MA, Harvard University Press., 1994.

Ruparathna, R. and Hewage, K. (2015). Review of Contemporary Construction Procurement Practices Review of Contemporary Construction Procurement Practices. *Journal of Management in Engineering*, *31*(3), 4014038.

Russo, M. V and Fouts, P. A. (1997). A resource-based perspective on corporate environmental performance and profitability. *Academy of Management Journal 40*(3), 534–559.

Ryan, S. F. (2007). *Dirty deeds done cheap'? : Employment relations and the organisation of work in the NSW commercial cleaning industry PhD Thesis,The University of Sydney*.

Ryan, S. and Herod, A. (2006). *"Restructuring the architecture of state regulation in the Australian and Aotearoa/New Zealand cleaning industries and the growth of precarious employment", in Aguiar, L.L.F. and Herod, A. (Eds.) The Dirty Work of Neoliberalism: Cleaners in the Global Eco*.

Rydin, Y. and Holman, N. (2004). Re-evaluating the contribution of social capital in achieving sustainable development. *Local Environment*, *9*(2) 117-133.

Saadatian, O., Haw, L. C., Mat, S. Bin and Sopian, K. (2012). Perspective of Sustainable Development in Malaysia. *International Journal of Energy and Environment*, *6*(2), 260–267.

Sakina, M. A., Fassman, E., Wilkinson, S. and Adi Irfan, C. A. (2013). Management Practice to Achieve Energy Efficiency Performance. Case Study – Green vs. Conventional Office Building in Malaysia. *Journal of Legal Affairs and Dispute Resolution in Engineering and Construction*, (5)4, 205-214

Salama, A. (2005). A note on the impact of environmental performance on financial performance. *Structural Change and Economic Dynamics*, *16*(3 SPEC. ISS.),

413–421.

Salamon, Lester M., E. (2002). *The Tools of Government: A Guide tothe New Governance. New York: Oxford University Press.*

Sands, C. (2004). *Effective Communication and its Impact on Organisational Performance and Motivation National College of Ireland, Ireland.*

Sanvido, V., Grobler, F., Parfitt, K., Guvenis, M. and Coyle.Michael. (1992). Critical Success Factors For Construction Projects. *Journal of Construction Engineering and Management*, *118*(1), 94–111.

Sanvido V, G. F. (1992). Critical Success Factors for construction projects. Construction Engineering Management. *Journal of Construction Engineering and Management*, *118*(1), 94–111.

Sapp, D. (2013). Facilities Operation and Maintenance. Retrieved from http://www.wbdg.org/om/om.php.

Sarpin, N. (2015). *Developing People Capabilities For The Promotion Of Sustainability In Facility Management*. PhD Thesis, Queensland University of Technology.

Saunders, M., Lewis, P. and Thornhill, A. (2003). *Research Methods for Business Students. (3rd ed.) London: Financial Times Prentice Hall.*

Saunders, M., Lewis, P. and Thornhill, A. (2009). *Research Methods for Business Students.(5th ed).England: Pearson Education Limited.*

Saunderson, R. (2004). Survey Findings of the Effectiveness of Employee Recognition in the Public Sector. *Public Personnel Management, 33*(3), 255–276.

Sawchuk, M. (2009). Green Cleaning: One Component of Worker Health. *Professional Safety*, *54*(3), 42–46.

Schaefer, D. R. and Dillman, D. A. (1998). Development of a standard e-mail methodology: Results of an experiment. *Public Opinion Quarterly*, *62*(3), 378–397.

Schertzer, C. B. and Kerman, J. B. (1985). More on the Robustness of Response Scales. *Journal of Marketing Research Society, 8*(4), 261–282.

Schreiber, J. B., Nora, A., Stage, F. K. and Barlow, E. A. (2006). Reporting Structural Equation Modeling and Confirmatory Factor Analysis Results : A Review. *The Journal of Educational Research*, *99*(6), 323–337.

Schroeder, H. (2012). The Importance of Human Resource Management in Strategic Sustainability: An Art and Science Perspective. *Journal of Environmental Sustainability*, *2*(1), 1–9.

Schweiker, M. (2002). *The Pennsylvania Green Building Operations and Maintenance Manual . Pennsylvania.*

Green Seal. GS-42 Green Seal ™ Environmental Standard for Cleaning Services (2006).

Green Seal. (2013). Green seal standard for, *5525*(202), 1–8.

Green Seal. (2013). Green Seal Standard For Compact Fluorescent Lamps (CFLs), *5525*(202), 1–12.

Sector Skills Assessment for the UK. (2011). Retrieved from http://www.skillsforhealth.org.uk/planning-your-workforce-strategy/skills-labour-market-intelligence/~/media/Resource-Library2/LMI/SfH-Full-UK-Sector-Skills-Assessment-2011.ashx

Sector Skills Assessment Skills Priorities Executive Summary. (2010).

Sekaran, U. (2003). *Research Methods for Business: A Skill-Building Approach. John Wiley & Sons, Incorporated, USA.*

Sekaran, U, & Bougie, R. . (2010). *Researh methods for business - A skill building*

approach.(5 ed.). U S A : John Wiley & Son s Inc.

Sekaran, U. (2000). *Research Methods for Business: A Skill -Building Approach (3ed ed.). New York: John Wiley & Sons, Inc.*

Senier, L., Mayer, B., Brown, P. and Morello-Frosch, R. (2007). School Custodians and Green Cleaners: New Approaches to Labor Environment Coalitions. *Organization & Environment*, *20*(3), 304–324.

Shah, S. (2007). *Sustainable Practice for the Facilities Manager. Oxford UK, Blackwell Publishing.*

Shaheen, A., Naqvi, S. M. H. and Khan, M. A. (2013). Employees Training and Organizational Performance : Mediation by Employees Performance. *Interdisciplinary Journal of Contemporary Research in Business*, *5*(4), 490–503.

Shamoo, A. E., & Resnik, D. B. (2003). *Responsible Conduct of Research. Oxford University Press.*

Sharif, S., Syahrul, N. K. and Michael, P. (2015). Project Team Perception in Green Building Projects Implementation in Malaysia. *Australian Journal of Basic and Applied Sciences*, *9*(April), 204–206.

Shaughnessy, J. J. and Zechmeister, E. B. (1997). *Research Methods in Psychology.McGraw-Hill.*

Sheehan, N. T. and Foss, N. J. (2007). Enhancing the prescriptiveness of the resource-based view through Porterian activity analysis. *Management Decision*, *45*(3), 450–461.

Shelbourn, M., Bouchlaghem, D., Anumba, C., Carillo, P., Khalfan, M. and Glass, J. (2006). Managing knowledge in the context of sustainable construction. *ITcon, 11*, 57–71.

Shendell, D. G., Barnett, C. and Boese, S. (2004). Science-based recommendations to prevent or reduce potential exposure to biological, chemical, and physical agents in schools. *The Journal of School Health*, *74*(518), 390–396.

Shephard, R. J. (2002). Ethics in exercise science research. *Sports Medicine*, *32*(3), 169–183.

Shoemaker, D. (2005). A history of green Cleaning. *Maintenace Supplies*, *50*(1), 24.

Silverman, D. (2013). *Doing Qualitative Research: A Practical Handbook. Fourth ed. Sage, Thousand Oaks, CA.*

Silvestro, R. (2002). Dispelling the modern myth: Employee satisfaction and loyalty drive service profitability. *International Journal of Operations and Production Management*, *22*(1), 30–49.

Simcox, N., Wakai, S., Welsh, L., Westinghouse, C. and Morse, T. (2012). Transitioning From Traditional To Green Cleaners: an Analysis of Custodian and Manager Focus Groups. *New Solutions: A Journal of Environmental & Occupational Health Policy*, *22*(4), 449–471.

Simsek, Z. and Veiga, J. F. (2000). The Electronic Survey Technique:An Intergration and assessment. *Organizational Research Methods*, *3*(1), 93–115.

Singh, R. K. Murty, H. R. Gupta, S. K. and Dikshit, A. K. (2009). An overview of sustainability assessment methodologies. *Ecological Indicators*, *9*(2), 189–212.

Siqueira, C. E. and Roche, A. G. (2013). Occupational Health Profile of Brazillian Immigrant Housecleaners in Massachusetts. *Journal of Environmental and Occupational Health Policy*, *23*(3), 505–520.

SIVECO. (2011). Reliability – Green buildings: the operation and service perspective. Retrieved from http://www.sivecochina.com/en/newsletter/reliability/reliability-green_buildings_the_operation_and_service_perspective/.

Smiciklas, J., Jager, L. d, Cucchietti, F., Zeddam, A., Canet, J.-M., Scheidt, L.-G.and

Ziegler, S. (2012). *Sustainable Buildings*

Smith, A. H., & Steinmaus, C. M. (2009). Health effects of arsenic and chromium in drinking water: recent human findings. *Annual Review of Public Health*, *30*, 107–122.

Smith, A. and Pitt, M. (2011). Sustainable workplaces and building user comfort and satisfaction. *Journal of Corporate Real Estate*, *13*(3), 144–156.

Smith, D. and Langfield-Smith, K. (2004). Structural equation modeling in management accounting research: critical analysis and opportunities. *Journal of Accounting Literature*, *23*(1), 49–86.

South China Morning Post. (1996). Johor Bahru, a city on the move".

Staehr, L. (2010). Understanding the role of managerial agency in achieving business benefits from ERP systems. *Inform Syst. J*, *20*(3), 2010.

Steenkamp, J. B. E. M. and Van Trijp, H. C. M. (1991). The use of lisrel in validating marketing constructs. *International Journal of Research in Marketing*, *8*(4), 283–299.

Steffen, W., Richardson, K., Rockström, J., Cornell, E., Fetzer, I., Bennett, E. M. and Linn, M. (2015). Planetary Boundaries: Guiding Human Development on a Changing Planet. *Journal of Education for Sustainable Development*, *9*(2), 235–235.

Steinemann, A. C., MacGregor, I. C., Gordon, S. M., Gallagher, L. G., Davis, A. L., Ribeiro, D. S. and Wallace, L. A. (2011). Fragranced consumer products: Chemicals emitted, ingredients unlisted. *Environmental Impact Assessment Review*, *31*(3), 328–333.

Stewart, W. F., Ricci, J. A., Chee, E. and Morganstein, D. (2003). Lost productive work time costs from health conditions in the United States: results from the American Productivity Audit. *Journal of Occupational and Environmental Medicine / American College of Occupational and Environmental Medicine*, *45*(12), 1234–46.

Stoy, C. and Johrendt, R. (2008). Cleaning management of owner-operated real estate. *Facilities*, *26*(3/4), 131–143.

Strauss, A. and Corbin, J. (1990). *Basics of Qualitative Research: Grounded Theory Procedures and Techniques. Newbury Park, CA: Sage Publications.*

Strauss, A. and Corbin, J. M. (1990). *Basics of qualitative research: Grounded theory procedures and techniques. Sage Thousand Oaks, CA.*

Streiner, D. (2003). Starting at the Beginning: An Introduction to Coefficient Alpha and Internal Consistency. *Journal of Personality Assessment*, *80*(1), 99–103.

Suifan, T. S. (2015). The Effect of Human Resources Practices on Organizational Commitment: A Jordanian Study. *Journal of Management Research*, *7*(4), 222.

Suleiman, A. M. and Svendsen, K. V. (2015). Effectuality of cleaning workers' training and cleaning enterprises' chemical health hazard risk profiling. *Safety and Health at Work*, *6*(4), 345–352.

Tabachnick, B. G. and Fidell, L. S. (2001). *Using Multivariate Statistics . (4 ed). Boston : Allyn and Bacon, 2001.*

Tabachnick, G. B. and Fidell, S. R. (2007). *Using Multivariate Statistics.(5th ed). Boston:Pearson Education,Inc.*

Tan, P. N., Steinbach, M. and Kumar, V. (2013). Data Mining Cluster Analysis : Basic Concepts and Algorithms.

Teece J., D., Pisano, G. and Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, *18*(March), 509.

The Asthma Society of Canada. (2005). The Asthma Society of Canada. Retrieved

from http://www.asthma.ca/

The U.S Green Building Council(USGBC). (2010). *Greening Our Schools:A State Legislator's Guide To Best Policy Practices*. Washington, D.C.

The Worldwide Cleaning Industry Association(ISSA). (2012). The Value Of Clean:How Cleaning Improves Your Bottom Line.Lincolnwood, Illinois.

Thompson, B. (2004). *Exploratory and confirmatory factor analysis: understanding concepts and applications. Washington, DC, American Psychological Association*.

Toor, S. U R. and Ogunlana, S. O. (2008). Critical COMs of success in large-scale construction projects: Evidence from Thailand construction industry. *International Journal of Project Management*, *26*(4), 420–430.

Toor, S. U R. and Ogunlana, S. O. (2010). Beyond the "iron triangle": Stakeholder perception of key performance indicators (KPIs) for large-scale public sector development projects. *International Journal of Project Management*, *28*(3), 228–236.

Toronto Govermenment management Committe. (2012). *Staff report for action on Council Directed Follow Up to CD10.2.Toronto*. Retrieved from http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2012.GM12.21

Trinchera, L. and Russolillo, G. (2010). *On the use of Structural Equation Models and PLS Path Modeling to build composite indicators.University of Macerata, Italy*.

Trygstad, S., Bråten, M., Nergaard, K. and Ødegård, A. (2012). Will the measures work? Status in cleaning sector in 2012 [Internet]. Oslo (Norway): Fafo Research Foundation; 2012. Report No.: 2012:59. 2012 Available from: http://www.fafo.no/pub/rapp/20286/20286.pdf. [in Norwegian]., 20286.

TushmanML and Nadler, D. (1986). Organizing for innovation. *California Management Review.*, *28*, 74 – 92.

U.S. Department of the Interior. (2012). *Facilities Deferred Maintenance and Capital Improvements . (Attachment G – FY 2012-16). US.*

U.S. Green Building Council -USGBC (2010) .Green Building Incentive Strategies. [http://www.slocounty.ca.gov] Access Date (16.03.2017).

UN. (2015). *Transforming Our World: The Agenda for Sustainable Development. Viewed from: https://sustainabledevelopment.un.org/post2015/ transformingourworld.*

United state Environmental Protection Agency(EPA). (1993). "EPA"s Approach & Progress' in Targeting Indoor Air Pollution.pdf.

United States Environmental Protection Agency(EPA). (1998). *The City of Santa Monica ' s Environmental Purchasing : A Case Study*.

United States Environmental Protection Agency (EPA). (2000). *Cleaning National Parks : Using Environmentally Preferable Janitorial Products at Yellowstone and Grand Teton National*.

Urbach, N. and Ahlemann, F. (2010). Structural Equation Modeling in Information Systems Research Using Partial Least Squares. *Journal of Information Technology Theory and Application (JITTA)*, *11*(2), 5.

US Environmental Protection(EPA). (2002). *Using Microfiber Mops in Hospitals. Environmental Protection*.

US Environmental Protection Agency. (1994). *Indoor Environment Characterization of a Non-Problem Building: Assessment of Cleaning Effectiveness.*

US Environmental Protection Agency. (2002). *Using Microfiber Mops in Hospitals. http://www.epa.gov/region09/waste/p2/projects/hospital/mops.pdf*.

US Environmental protection agency[EPA]. (2017). *Greening Your Purchase of*

Cleaning Products : A Guide for Federal Purchasers . Why Green Your Cleaning Products ?http://www.epa.gov/epp/pubs/cleaning.htm.

US Executive Order 13101, September 14, 1998. *46 Fr 13193*. Retrieved from http://www.archives.gov/federal-register/codification/executive-order/12291.html

Van de Ven, A., Polley, D. Garud, R. and Venkataraman, S. (1999). *The Innovation Journey. Oxford University Press; New York.*

Wahyuni, D. (2012). The Research Design Maze: Understanding Paradigms, Cases, Methods and Methodologies. *Journal of Applied Management Accounting Research*, *10*(1), 69–80.

Wakai, S. (2013). *Evaluation of a green cleaning program and practices training curriculum for custodians. In 141st APHA Annual Meeting and Exposition (November 2-November 6, 2013). APHA. In 141st APHA Annual Meeting and Exposition*, 1.

Walker, H. and Brammer, S. (2009). Sustainable procurement in the United Kingdom public sector. *Supply Chain Management: An International Journal*, *14*(2), 128–137.

Walker, R. and Vuturo, C. (2010). Ask The experts. *Facility Care*, *15*(7), 34.

Wang, J. and Wang, X. (2012). *Structural Equation Modeling:Applications Using Mplus.John Wiley & Sons*.

Wang, X., Hawkins, C. and Berman, E. (2014). Financing Sustainability and Stakeholder Engagement: Evidence from U.S. Cities. *Urban Affairs Review*, *50*(6), 806–834.

Wang, X., Hawkins, C. V., Lebredo, N. and Berman, E. M. (2012). Capacity to sustain sustainability: A study of U.S. cities. *Public Administration Review*, *72*(6), 841–853.

Waqas, M., Zulfiqar, C. and Nadeem, A. (2016). Exploring the Effects of Training and Development Practices on Organization Performance : A Case Study of Pakistan Telecommunication Authority. *Asian Journal of Social Sciences and Management Studies*, *3*(1), 47–55.

Washington D.C U.S. General Service Administration. (2011). *Green building performance:A Post occupancy evaluation of 22 GSA buildings*.

Watson, R. (2011). *Green Building and Market Impact Report – 2011. Accessed Nov. 15, 2011 via http://www.greenbiz.com/research/report/2011/11/07/green-building-market-and-impact-report- 2011.*

WBDG. (2012). Sustainable. Retrieved from http://www.wbdg.org/design/sustainable.php.

WCED. (1987). *The World Commission on Environment and Development (WCED) "Our Common Future" . Viewed from http://conspect.nl/pdf/Our_Common_Future-Brundtland_Report_1987.*

Weidema, B., Thrane, M. and Christensen P, et al. (2008). Carbon footprint: A catalyst for life cycle assessment. *Journal of Industrial Ecology, 12*, 3 – 6.

Weill, P. and Olsion, M. (1989). An assessment of the contingency theory of management information systems. *Journal of Management Information Systems Archive*, *6*(1), 59–79.

Wellington, J. (2000). *Educational Research : Contemporary issues and practical approaches (London, Continuum).*

Werner, K., Reed, R., Bilos, A. and Wilkinson, S. (2009). International comparison of sustainable rating tools. *Journal of Sustainable Real Estate*, *1*(1), 1–22.

Wernerfelt, B. (1984). A Resource-Based View of the Firm. *Strategic Management*

Journal, *5*(2), 171–180.

Wheaton, B., Muthen, B., Alwin, G. F. and Summers, G. F. (1977). Assessing reliability and stability of panal. *Sociological Methodology*, *8*(1), 84–136.

Whitton, H. (2009). Organisational ethics policies: A primer, *4*(4).

Widaman, K. F., Ferrer, E. and Conger, R. D. (2010). Factorial Invariance Within Longitudinal Structural Equation Models : Measuring the Same Construct Across Time, *4*(1), 10–18.

Williams, B. (1996). Cost-effective facilities management: a practical approach. *Facilities, 14*(5/6), 26–38.

Williams, P., Sajid Khan, M., Ashill, N. J. and Naumann, N. (2011). Customer attitudes of stayers and defectors in B2B services: are they really different? *Industrial Marketing Management*, *40*(5), 805–815.

Williamson, J. E. (2009). Green cleaning gaining ground. *Healthcare Purchasing News*, *33*(4), 32.

Winchester, C. L. and Salji, M. (2016). Writing a literature review. *Journal of Clinical Urology*, *9*(5), 308–312.

Wolkoff, P., Schneider, T., Kildesø, J., Degerth, R., Jaroszewski, M. and Schunk, H. (1998). Risk in cleaning: Chemical and physical exposure. *Science of the Total Environment*, *215*(1–2), 135–156.

Woods, M. (2009). A contingency theory perspective on the risk management control system within Birmingham City Council. *Management Accounting Research*, *20*(1), 69–81.

Wooldridge, J. M. (2009). *Introductory Econometrics: A Modern Approach, fourth ed. Cengage Learning, South Western, Mason, OH.*

Wright, K. B. (2005). Researching Internet-Based Populations: Advantages and Disadvantages of Online Survey Research, Online Questionnaire Authoring Software Packages, and Web Survey Services. *Journal of Computer-Mediated Communication*, *10*(3), 0.

Wu, L. Y. (2007). Entrepreneurial resources, dynamic capabilities and start-up performance of Taiwan's high-tech firms. *Journal of Business Research*, *60*(5), 549–555.

Wu, L. Y. (2010). Applicability of the Resource -Based and Dynamic - Capability Views under Environmental Volatility. *Journal of Business Research, 63*, 27–31.

Wu, P. and Low, S. P. (2010). Project management and green buildings: Lesson from the rating systems. *Journal of Professional Issues in Engineering Education and Practice*, *136*(2), 64-70.

Xiong, B., Skitmore, M. and Xia, B. (2015). A critical review of structural equation modeling applications in construction research. *Automation in Construction*, *49*, 59–70.

Xiong, B., Skitmore, M., Xia, B., Masrom, M. A., Ye, K. and Bridge, A. (2014). Examining the influence of participant performance factors on contractor satisfaction: A structural equation model. *International Journal of Project Management*, *32*(3), 482–491.

Xu, N. (2012). Lean, Mean, Green Cleaning Machine: One School District's Quest for Sustainability Nina Xu. *Spring*, 1–18.

Xu, P., Chan, E. H.-W. and Qian, Q. K. (2011). Success factors of energy performance contracting (EPC) for sustainable building energy efficiency retrofit (BEER) of hotel buildings in China. *Energy Policy*, *39*(11), 7389–7398.

Xuan, X. (2015). Effectiveness of indoor environment quality in LEED-certified healthcare settings. *Indoor and Built Environment*, *0*(0), 1–13.

Yanarella, E. J., Levine, R. S. and Lancaster, R. W. (2009). Research and Solutions: "Green" vs. Sustainability: From Semantics to Enlightenment. *Sustainability: The Journal of Record*, *2*(5), 296–302.

Yaron, G. (2013). Does Building Green Create Value? Retrieved from Vancouver, BC: http://www.sustainablebuildingcentre.com/wp-.

Yin, R. K. (2009). *Case Study Research: Design and Methods (Vol. 5):Sage Publications, Inc.*

Youndt, M. A., Subramaniam, M. and Snell, S. A. (2004). Intellectual capital profiles: an examination of investments and returns. *Journal of Management Studies*, *41*(2), 335–361.

Young, J., Schwinghammer, K., Steen, E. and Zaffrann, D. (2010). *CLEAN SWEEP ; How a New Approach to Cleaning Commercial Buildings in the Twin Cities Can Protect Our Health and the Environment while Securing Jobs and Saving Money.*

Zainol, N. N. (2016). *A Structural Model of Green Cleaning Components and Requirements for Green Building*. PhD Thesis, Universiti Teknologi Malaysia.

Zainol, N. N., Izran, S. M., Maiizen, B., Neo, B. W. and Abdul, Q. N. (2015). Green Cleaning: An Essential Aspect Of Malaysian Green Buildings. *Jurnal Tehnologi*, *75*(10), 64–67.

Zainudin, A. (2015). *SEM made Simple (First).MPWS Rich Publication Sdn.Bhd. (1132290-K), Malaysia.*

Zakaria, H., Arifin, K., Ahmad, S., Aiyub, K. and Fisal, Z. (2011). Facilities Management in Building Maintenance: Quality, Safety and Health Practices . *Journal of Techno-Social*, 23–36.

Zhang, Z., Hu, J. and Shen, L. (2016). Green Procurement Management in Building Industry: An Alternative Environmental Strategy. In *In Proceedings of the 20th International .Symposium on Advancement of Construction Management and Real Estate. Springer Singapore* 1217–1228.

Zhu, Q. and Sarkis, J. (2006). An inter-sectoral comparison of green supply chain management in China: Drivers and practices. *Journal of Cleaner Production*, *14*(5), 472–486.

Zikmund, W. G. (2003). Exploring Marketing Research. Cincinnati, Ohio:Thomson/South-Western.

Zikmund, W. G. and Babin, B. J. (2007). *Exploring marketing research (9th ed). Thomson/South- Western, Mason, Ohio.(9th ed). Thomson/South- Western, Mason, Ohio.*

Zmeureanu, R., Fazio, P., Zhang, J., Xie, Y., Athalye, R., Goel, S. and Benveniste, A. (2009). Do LEED-certified buildings save energy? Yes, but *Energy and Buildings*, *41*(2), 897–905.

Zock, J. (2005). World at work : Cleaners. *Occupational and Environmental Medi*, *62*(8), 581–584.

Zock, J. P. (2005). World at work: cleaners. *Occupational and Environmental Medicine*, *62*(8), 581–584.

Zudonyi, C. (2007). *Turning clean into Green.CleanLink available at www. clean link.com/hs/article/Turning- Clean -Into- Green --6834.*

Zutshi, A., Sohal, A. S. and Adams, C. (2008). Environmental management system adoption by government departments/agencies. *International Journal of Public Sector Management*, *21*(5), 525–539.