Built Environment Project and Asset Management

A framework for adopting green leasing in developing countries: the case of Sri Lanka

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Abstract

Purpose - The purpose of this study is to identify the enablers and barriers to the adoption of green leasing in Sri Lanka and propose probable solutions.

Design/Methodology/Approach – As an in-depth investigation was required, the case study method with a qualitative approach was selected as the research methodology. A documentary review and semi-structured interviews on three selected green buildings were conducted to study their leasing processes. QSR NVivo statistical analysis software was used for the content analysis.

Findings – Enablers and barriers to the adoption of green leasing under different categories such as those related to processes, institutions and Government and also to legal, economic and social factors were determined along with probable solutions identified through a comprehensive framework that was developed.

Practical Implications – The findings can be used as a basis to evaluate the current leasing processes that have adopted this emerging and important approach towards the sustainable operation and management of green buildings.

Originality/Value – The little attention paid to this latest concept makes it important to evaluate the adoptability of green leasing in developing countries. Hence, the determination of key enablers, barriers and solutions was the focal point of this research.

Key words –Green Leasing, Adoptability, Green Buildings, Sri Lanka

1. Introduction

The concept of green is not new as there has been a noticeable trend towards green buildings in the last few decades (Samer, 2013). According to a 2014 publication of the United States Environmental Protection Agency (EPA), green building can be defined as the practice of creating structures and the use of environmentally responsible and resource-efficient processes throughout a building's life-cycle starting from its siting and extending to its design, construction, operation, maintenance, renovation and deconstruction. Green Building is not solely the assembling of environmentally friendly elements or the retrofitting of existing buildings (Karolides, 2002). Social, economic and environmental expectations have set up a tendency towards building up and making existing buildings green. This concept also serves the global challenges connected with energy saving, climate changes and the interests of environmentally friendly groups (Miller, 2010). According to World Green Building Council (WGBC, 2013), the tenants and the landlords are the two major parties who will be interested in green buildings. According to Sharp (2009), each party will have its own interests. The concept of green leasing that has now emerged, besides enhancing building performance, incorporates environmentally favorable practices into lease agreements (Welsh School of Architecture, United Kingdom (WSAUK), 2009). According to WSAUK (2009), a green lease is a mutual understanding between a landlord and a tenant which is in line with sustainable practices that preserve the natural resources of the leased property. Furthermore, the concept of green leasing has sharpened the competitiveness in the commercial leasing market (Brooks, 2008). According to a study made by Dingwell (2010), green leasing can be considered as the turning point of commercial leasing of green buildings as it could enhance building performance and improve the relationship between the landlord and the tenant. In a green lease, the landlord has to act

more preferred to involve in green lease, so as to earn profits when developing, operating and maintaining commercial buildings. Therefore, the property owner will try his best to attract tenants into green lease and retain the best among them to earn maximum benefits. The tenant would demand green practices to ensure a productive work environment, and this demonstrates the path to green lease (Council of Australian Governments - COAG, 2012).

A green lease is a lease agreement between a landlord and a tenant that will ensure sustainable operation and management of green buildings (Hughes and Melia, 2010). Green leasing is widely used in developed countries like Australia. The rapid growth of the green lease concept in the United Kingdom and France has led the way for the concept in Europe as well (CMS, 2013). Fletcher (2008) has reported that the establishment and continuation of green lease in Canada and other Nordic countries are at a satisfactory level. However, in the developing countries, green leasing is still not commonly practiced (Huges and Melia, 2010). In Sri Lanka, green leasing is still an emerging concept in the property sector even though the country has already made considerable efforts to pursue the green building concept to optimize the sustainable operation and performance of buildings (Mendis, 2013). Most of the industries in Sri Lanka are now striving to move towards green. According to the Export Development Board (2012), the world's first green factory is in Sri Lanka. Heritance Kandalama is the first Leadership in Energy and Environmental Design (LEED) certified green building in Sri Lanka and is also the first LEED certified building outside the United States of America (USA) (Sri Lanka Business and Bio-diversity, 2014). The adoption of this latest concept by the commercial leasing market in Sri Lanka would be important for enhancing building performance. As there are no previous studies on the green leasing concept, the main focus of this research was on identifying the enablers and barriers to the adoption of the green leasing concept by developing countries, particularly by Sri Lanka.

2. Literature Review

The green building concept is not a new concept having been initiated during the time of the industrial revolution (Stone, 2011). Green buildings have been recognized worldwide as a means of mitigating the effects of inefficient energy usage and reducing the amount of global greenhouse gas emissions (Howe, n.d; Brown and Southworth, 2006; Berardi *et al.,* 2013). A green lease is an agreement between a tenant and a landlord of a green building (Green Building Alliance in United States - GBAUS, 2013). What motivates landlords and tenants to adopt green alternatives is not the green lease structure itself but the benefits of the green lease (Bucket, 2010). According to Fletcher (2008), green leasing is more than introducing additional clauses to an existing lease agreement. It requires the use of equipment that enhances owner – tenant engagements towards sustainability (Pivo, 2010). A green lease will ensure the commitment of the landlord and the tenant towards reducing the demerits of current leasing practices while adopting environmentally friendly practices in buildings (Brooks, 2008; Fletcher, 2008). Dingwell (2010) has recognized a well-established green lease as a step towards achieving energy efficiency as well as sustainability in a building.

A property owner may incorporate in his building whatever that is necessary to attract as many tenants as possible and identify the best tenant among them. However, most landlords as well as investors do not wish to go for energy efficient buildings, because of the high capital expenditure involved which require long payback periods (Pinset Masons of United Kingdom - PMUK, 2012). Green leasing is a strategy to mitigate several barriers while helping tenants and landlords to achieve the best returns for their expenditure and save money through the adoption of energy efficient measures (GBAUS, 2013). There has been a rapid growth in green leases in the United Kingdom and France and in Europe also it is on the increase (CMS, 2013). Table 1 compares the existing leasing practices with those of green leasing.

Table 1: Comparison of existing lease practices and green leasing practices
Source: (Bird and Hernandez, 2012; Pelenur and Cruickshank, 2012)

The deficiencies in the existing lease agreements as shown in Table 1 can be overcome by adopting green leasing. The mutual understanding that exists between the parties concerned and their sincerity will certainly drive them to continue with green practices in their buildings. In Sri Lanka, which is still a developing country, there has been a rapid growth of the green building industry during the past few decades even though the concept is still quite new to the country (Green Building Council of Sri Lanka - GBCSL, 2010). As the authorized organization for green buildings in Sri Lanka, the GBCSL has established a mechanism to integrate the relevant sectors to ensure the sustainable operation of buildings (Mendis, 2013). Currently, GREEN$^{SL®}$ and LEED certifications are applied to the buildings in Sri Lanka (Mallikage, 2015). Since of late there has been a considerable increase in the number of green buildings in Sri Lanka, it is essential to identify the importance of green leasing in the Sri Lankan context.

Even globally, there have been barriers to the adoption of green leasing. Many landlords go green solely because of the marketing benefits it offers (Five Green Leasing Tips, 2012). It is also not possible to achieve all objectives stated in green lease agreements (Australian State and Territory Governments - ASTG, 2010), and this has been identified as a major obstacle for implementing green leasing. The United States Department of Energy (USDE, n.d.) reveals that green lease clauses will not be the one and the only solution for ensuring energy efficiency in green buildings. The other barriers to be considered are the poor commitment of the tenants and the poor awareness of the public on the costs and benefits of green lease practices (USDE, n.d.). These obstacles to adopting green leasing can therefore be grouped under six major categories, namely as process, institutional, government, legal, economic and social related barriers as already stated in the research study mentioned earlier (ASTG, 2010; Pelenur and Cruickshank, 2012; USDE, n.d.). All past research on the subject have been carried out in developed countries. The potential impacts, both economic and social, of environmental degradation are unique for developing countries, as they are quite vulnerable to the impacts of climate change being more dependent than developed nations on the exploitation of natural resources for their economic growth. Additionally, developing nations have to face risks related to premature deaths caused by pollution, poor water quality, and diseases at rates higher than those in developed nations. Although developing nations contribute a smaller share to global greenhouse gas emissions than developed nations, they will produce increased amounts of emissions if they follow conventional systems. Therefore, it is very important to popularise these new concepts in the developing countries.

The aim of this research was to identify the enablers and barriers to the adoption of green leasing in Sri Lanka and to analyse same through the research methodology described in Section 3.

3. Research Methodology

The required in-depth investigation on green buildings and leasing practices justified the selection for this research, the case study method with a qualitative approach. As this research was more focused on identifying the key enablers and barriers to the adoption of green leasing, semi-structured interviews were conducted to collect primary data related to three green certified buildings in Sri Lanka. All the selected interviewees have been employed and involved in green leased buildings since their inception. Table 2 illustrates the details of the respondents interviewed.

Table 2: Interviewee profiles

In each case, the leasing process was considered as the 'unit of analysis' in identifying and analysing the data. A documentary review was also conducted for obtaining multiple sources of evidence to validate research findings. In this research involving three case studies, content analysis and cross-case analysis of data were done using QSR NVivo software. Case study findings were confirmed through five expert interviews conducted among experienced professionals who were working in the property sector in Sri Lanka (refer Table 2). The case analysis details and findings are presented later in the paper.

4. Results and Discussion

4.1 Enablers to the Adoption of Green Leasing

Case study data were analysed to identify the enablers and barriers to the adoption of green leasing in the property sector in Sri Lanka. The enablers of the leasing practice were first identified and demonstrated. Even though green leasing is still not common in Sri Lanka, the respondents could predict the process related enablers of a green lease. The senior manager of Case A clarified the trend towards green leasing by saying that, *"Most of the companies are willing to go green now. It is better to enhance green involvement and sustainability through lease agreements as well"*.

The lease agreement has already been drafted in the selected case, and there had been no suggestions received about incorporating new clauses to the lease agreement. The chief engineer of Case B said, *"We can implement new clauses. As a developer, we can even propose"*. The manager of Case C identified another enabler when he said, *"We are carrying out our business in a green building which itself can be identified as the key enabler to the adoption of green leasin*g". The manager of Case A identified the economic status of the country as an enabler to the adoption of green leasing when he said that, *"However, as a developing country, we are in a good position to check the suitability of adopting the new concept"*. The manager of Case C disclosed that in his view, there is no restriction from the government to adopt green leasing. The senior manager of Case A said, *"We are in a good position after the war to adopt green leasing"*. The universities too stress on green leasing in their teachings. The legal manager of Case A was to endorse this when he said, *"There are so many young graduates who are knowledgeable about green leasing"*.

Accordingly, the enablers to the adoption of green leasing can be listed as follows:

Process related enablers
- Absence of any restrictions on incorporating new clauses
- Tendency to go green

Institutional enablers
- Carrying out business in a green building
- Ease of adoption by rich tenants

Economical enablers
- Low cost of natural resources
- Attraction of foreign tenants

Government and legal related enablers
- Absence of restrictions on green leases
- Support given by the government to enhance sustainable activities

Social related enablers
- Peace prevailing in the country after the civil war

- Young and knowledgeable graduates and non-profit organisations who are concerned about sustainability
- Contribution made by the GBCSL

4.2 Barriers that were Identified and the Proposed Solutions

The main focus of this research was to identify the enablers and barriers to the adoption of green leasing in Sri Lanka as a country that is still under development. As the section 4.1 derives key enablers to adopt green lease, this section focuses on identifying the barriers. Case analysis was used to ascertain the key barriers to adopting green leasing. The solutions proposed by the experts in the field of green buildings and property leasing were considered to overcome the identified barriers.

4.2.1 Process Related Barriers

Barriers that were identified

Process related barriers which have impeded green leasing were identified. According to the senior manager of Case A, *"We cannot adopt it directly, since when it is introduced suddenly as a concept borrowed from overseas, it will definitely get rejected*". The administrative executive of Case C stated, *"Lack of awareness and the absence of sustainable practices and energy efficient processes can be barriers".* The long period of time taken for implementing green leases was another barrier disclosed by the case study respondents. Accordingly, the difficulty of immediately adopting the concept due to it being a concept borrowed from overseas, difficulty in introducing new clauses immediately and the long time taken by the process are the process related barriers.

Proposed Solutions

The empirical findings revealed the process related barriers. The senior manager of Case A was of the view that, *"It is required to incorporate sustainable green policies into a lease agreement with the blessings of both parties".*

The legal consultant (E3) also agreed with the requirement of incorporating these new clauses when he said, "S*ustainable clauses relating to energy efficiency, water efficiency, emission reduction and waste minimization should be incorporated into the lease agreement"*. Hence, the introduction of standard clauses relating to sustainability, energy efficiency, waste management, and emission reduction and facilitating awareness about the process would lessen the impact of the barriers to the adoption of green leasing.

4.2.2 Institutional Barriers

Barriers that were identified

The key institutional barriers to adopting green leasing were identified as the lack of support from the organisations concerned, insufficient budgetary allocation provided for sustainable activities, documentary and other administrative costs and the difficulty in applying and obtaining approvals from the organizations concerned for sustainable activities. Even though green leases are used in energy efficient buildings, administrative obstructions can emerge. The manager of Case C said, *"We have to hold meetings, conduct awareness programs, prepare documentation etc., and internal auditing procedures too have to be followed*". According to the legal manager of Case A , *"The company may haveto make a higher investment to implement changes as well as to conduct awareness and training programs*". Another importatnt point was

made by the senior manager of Case A when he said that, *"There can be no monetary benefits gained through a green lease. Today, the main consideration is on doing business and not on reaching sustainable goals. Therefore, a lack of financial supportcan be identified as a barrier*".

Proposed Solutions

As solutions for overcoming the identified institutional barriers, the legal manager of Case B made a proposal saying that, *"Enhancement of the awareness and the practical knowledge of tenants are required*". It was further confirmed by the administrative executive of Case C when he said that, "*Awareness and training programs should be developed, aimed at building users*". The CEO (E2) expressed the view that*, "The tenants should promote the green leasing concept. "*The other solutions proposed by case study respondents to overcome institutional barriers were the promotion of awareness among the main stakeholders, conduct of awareness and training programs for employees, encouragement of green leasing within organisations and transfer of the benefits of energy efficiency systems implemented to tenants.

4.2.3 Economical Barriers

Barriers that were identified

The empiricl findings revealed economical as well as other cost related barriers to adopting green leasing. The senior manager of Case A said that *"We have something to develop further. After achieving all of the primary objectives, we can pay attention to other issues such as good qualities, sustainable development, luxury life styles etc. Then we can think of itas a challenge"*. The legal manager of Case B also considered it as a barrier to adopting green leasing by saying that *"It is required to fulfill other basic requirements before going to the next step"*. The chief engineer of Case B expressed the view that,"*Even though we are a developing country we have to compete with other developing countries and alsowith developed countries.*" Accordingly, the major economical barriers to adopting green leasing were identified as the difficulty in competing in the foreign market, centralized electricity supply and the increased costs of products.

Proposed Solutions

According to the legal consultant (E3), *"Alternative energy sources should be recognized and the government should take action to reduce the cost of energy supplied by conventional sources"*, and this, in his view, would be a solution to eliminate economic barriers.

The legal manager of Case B said, *"The government should provide tax benefits to green followers"*. The CEO (E5) mentioned that *"The major requirement that has to be fulfilled is the provision of incentives. For this, not only the support of the government but also the support of the private sector would be essential. If there can be lower interest rates for bank loans that will encourage the building sector"*.

Hence, the probable solutions for overcoming economic barriers to adopting green leasing are alternative energy solutions, tax benefits to green followers, subsidies provided to companies, increased private sector involvement and lower interest rates offered to the building sector for motivation towards green leasing.

4.2.4 Government and Legal Related Barriers

Barriers that were identified

The factual data collected from the respondents showed that there is a considerable number of government and legal related barriers. The senior manager of Case A reported that *"There are*

no government regulations to restrict the implementation of green leasing. Unfortunately, there is also no encouragement given to green leasing". The manager of Case C said, *"Another very important aspect is the rules and regulations of the government. There is no encouragement to adopt green leasing in our buildings. Therefore, the developer cannot force the tenants without any direction from the government"*. According to the legal manager of Case A, *"A lack of government incentives such as tax benefits can be identified as one of the barriers"*. Hence, the absence of government policies, rules and regulations and the lack of encouragement from the government would be the key barriers to adopting green leasing.

Proposed Solutions

On reducing the constraints which have arisen from the government and legal obstacles to adopting green leasing, the senior manager of Case A disclosed that, *"Government policies should be introduced to set a minimum level for energy efficiency"*. The manager of Case C said, *"The government should introduce rules and regulations"*. The manager administration (E4) mentioned, *"If green leases are to be introduced in Sri Lanka, the first initiative should be to promote the construction of green buildings*". As proposed by the case respondents and experts, probable solutions that will overcome legal barriers and those imposed by the government to the adoption of green leasing would be to develop a policy framework, introduce rules and regulations to encourage green leasing, amend the laws to ensure the sustainability of green leasing, incorporate clauses relating to green leasing in construction law, condominium law etc., and conduct awareness programs to make the public aware of the value of sustainable living.

4.2.5 Social Barriers

Barriers that were identified

There is little awareness about green leasing in Sri Lanka. Some of the respondents were of the view that this lack of awareness is the major barrier to adopting green leasing. The administrative executive of Case C declared lack of awareness as the main issue. The senior manager of Case A spoke about the main barrier saying, *"They do not see the value of these aspects such as sustainability"*. Thus, the social barriers to adopting green leasing are the lack of understanding of the value of green leasing, lack of concern about the environment and sustainability and the lack of awareness on green leasing.

Proposed Solutions

The empirical findings revealed social related barriers to be one of the major barriers, there being very little awareness about green leasing among the people of the country. Furthermore, the value of sustainable living is still not much known within Sri Lanka. Therefore, the enhancement of knowledge on green leasing would be a timely requirement. According to the senior manager of Case A, there is a need to enhance each individual's attitude towards nature and humanity. A professor (E1) proposed that there is a need to conduct awareness programs among the general public. Therefore, the development of right attitudes in the public, conducting awareness and training programs, developing positive mindsets on green leasing and making tenants aware about the benefits of green leasing are the solutions proposed to overcome social barriers. Table 3 summarises the key research findings derived through the case study data analysis.

Table 3: Summary of key research findings

Based on the empirical findings of the case study analysis, a green lease adoptability framework was developed as illustrated in Figure 1.

Figure 1: Green lease adoptability framework

This framework has been developed by considering the possible ways of adopting green leasing in Sri Lanka as a developing country. The framework consists of enablers and barriers that have to be overcome. Furthermore, probable solutions have also been proposed to overcome the barriers that have been identified. The subduing of emerging barriers and the promotion of enablers would be very much important if the property sector in Sri Lanka is to be encouraged to adopt this latest concept.

5. Conclusions

Green buildings provide a very comfortable environment to their occupants and increased profits to their developers. A green lease is required to enhance the efficiency of a green building. However, the green leasing concept is still new to the property sector in Sri Lanka even though Sri Lanka has by now taken considerable efforts to promote the green building concept to optimise the sustainable operation and performance of buildings. There are barriers emerging in the property sector which can affect the growing trend for green leasing. Hence in this research, enablers and barriers to the adoption of green leasing were ascertained and the barriers identified were categorised as relating to process, institutional, economical, government, legal and social related factors. The major barriers are identified to be the unawareness of the public about it, poor institutional and government commitment and incentives and the fewer financial initiatives provided for sustainability approaches. A green lease adoptability framework was developed thereafter as the focal point of this research, by proposing methods of overcoming the key barriers. Accordingly, the developed framework could be used as a basis to upgrade the green leasing process, a newest concept used in green buildings in most of the developing countries especially in Sri Lanka.

References

Australian State and Territory Governments - ASTG. (2010). *National green leasing policy*. Available at: http://www.apcc.gov.au/ALLAPCC/GPG%20-%20FACT%20SHEET%202%20National%20Green%20Lease%20Schedule.pdf

Berardi, U., Dahlan, N.D., Ghaffarian Hoseini, A.H., Ghaffarian Hoseini A., Ghaffarian Hoseini, M. and Makaremi, N. (2013). Sustainable energy performances of green buildings: A review of current theories, implementations and challenges. *Renewable and Sustainable Energy Reviews,* Vol.25, pp.1-17. doi:10.1016/j.rser.2013.01.010

Bird, S. and Hernandez, D. (2012). Policy options for the split incentive: Increasing energy efficiency for low-income renters. *Energy Policy,* Vol.48. pp.506- 514.

Brooks, M. (2008, November/ December). Green leases and green buildings. *Probate and Property.* Available at: http://www.americanbar.org/content/dam/aba/publishing/probate_property_magazine/rppt_mo_premium_rp_publications_magazine_2008_nd_pp_NovDec08_Brooks.authcheckdam.pdf

Brown, M.A. and Southworth, F. (2006). *Mitigating climate change through Green Buildings and Smart Growth.* 1- 45. Available at: https://smartech.gatech.edu/bitstream/handle/1853/23806/wp23.pdf

Bucket, D. (2010, August). The net lease and the split incentive. *Commercially Green Florida.* Available at: http://commerciallygreen.com/?p=11

CMS. (2013). *Green lease clauses in Europe*. Available at: https://eguides.cmslegal.com/pdf/greenleaseclauses.pdf

Council of Australian Government - CAG. (2012). *Green lease hand book*. Retrieved from http://www.gbca.org.au/gbc_scripts/js/tiny_mce/plugins/filemanager/Green-Lease-Handbook-20120907-PDF.pdf

Dingwell, J. (2010). *Using green leases to improve building performance*. Available at: http://greeneconomypost.com/green-leases-improve-building-performance-8003.htm

Environmental Performance Agency - EPA. (2014). *Definition of green building*. Available at: http://www.epa.gov/greenbuilding/pubs/about.htm

Export Development Board. (2012). *Sri Lankan apparel sector*. Available at: http://www.srilankabusiness.com/pdf/industry_capability_report_apparel.pdf

Five Green Leasing Tips. (2012, January). *Sustainable building certification in practice.* Available at: https://greenbuildingmanager.wordpress.com/2012/01/23/5-green-leasing-tips/

Fletcher, L. (July 2008). How concerns about sustainability are being reflected in contractual arrangement. *UK: The "Green" Lease*, Available at: http://www.mondaq.com/article.asp?article_id=62436&signup=true

Green Building Alliance of United State - GBAUS. (2013). *Green leasing*. Available at: https://www.go-gba.org/resources/green-building-methods/green-leasing/

Green Building Council Sri Lanka, (2010). *Green rating system for built environment.* Green Building Council Sri Lanka. Colombo, Sri Lanka: SL.

Howe, J.C. (n.d.). *Overview of Green Buildings.* pp. 3-14. Available at: http://sallan.org/pdf-docs/CHOWE_GreenBuildLaw.pdf

Hughes, J., Meilia, J. (2010, December). 'Green Leases': Commercial lease arrangements for sustainable buildings. *Property Law*. Available at: http://www.ogier.com/Publications/library/Pages/Green_leases_commercial_lease_arrangements_for_sustainable_buildings.aspx

Mallikage, S.T. (2015, April 2). Green Building concept and its Sri Lankan context [Forestry and environmental science blog]. Available at: http://www.sjp.ac.lk/sites/forestry/2015/04/02/green-building-concept-and-its-sri-lankan-context/

Mendis, P. (2013, September 13). Building a sustainable future – 'Greener buildings, better places, healthier people'. *The Sunday Times.* Available at: http://www.sundaytimes.lk/130929/business-times/building-a-sustainable-future-greener-buildings-better-places-healthier-people-63527.html

Miller, S.R. (2010). Green leasing in the era of climate change: Practical solutions for balancing risks, burdens, and incentives. *Environmental Law Reporter, Vol. 40 No.*5. Available at:http://elr.info/news-analysis/40/10487/commercial-green-leasing-era-climate-change-practical-solutions-balancing-ris

Pinset Masons of United Kingdom - PMUK. (2012). *The development of green lease.* Available at: Kats http://www.pinsentmasons.com/PDF/DevelopmentofGreenLeasees.pdf

Pivo, G. (2010). *Owner-Tenant engagement in sustainable property investing.Vol.2 No.*1, pp. 183-199. Retrieved from http://www.josre.org/wp-content/uploads/2012/09/Owner_Tenant_Engagement_Sustainable_Property_Investing-JOSRE_v2-91.pdf

Samer, M. (2013). Towards the implementation of the green building concept in agricultural buildings: A literature review. *AgricEngInt: CIGR Journal, 15*(2), 25-46. Retrieved from http://www.cigrjournal.org/index.php/Ejounral/article/viewFile/2329/1724

Sharp, J.M. (2009, summer). "Green" leasing: a practitioner's overview. *Real property, Probate &Trust Section Newsletter*. Available at: http://ndc-edge1.stoel.com/files/Green%20Leasing%20Article%20-%20J.Sharp.pdf

Sri Lanka Business and Biodiversity Platform. (2014, July).*Sri Lanka's green buildings have a higher completion rate.* Available at: http://business-biodiversity.lk/sri-lankas-green-buildings-have-a-higher-completion-rate/

Stone, B. (2011, February). *How building green got its start.* Patsalides, L. (ed.). Available at: http://www.brighthub.com/environment/green-living/articles/51601.aspx

United State Department of Energy - USDE. (n.d). *Brandywine Realty Trust Overcomes the Split Incentive Barrier and Obtains Tenant Utility Data*. Available at: http://apps1.eere.energy.gov/buildings/publications/pdfs/alliances/brandywine_case_study_10-15-12.pdf

Welsh School of Architecture of United Kingdom - WSAUK. (2009). *Greening the commercial property sector: A guide for developing and implementing best practice through the UK leasing process.* Available at: http://www.greenleases-uk.co.uk/Good%20Practise%20Guide%203-for%20web.pdf

World Green Building Council – WGBC. (2013).*The Business case for Green Building.* Available at: http://www.worldgbc.org/files/1513/6608/0674/Business_Case_For_Green_Building_Report_WEB_2013-04-11.pdf

Figure 1: Green lease adoptability framework

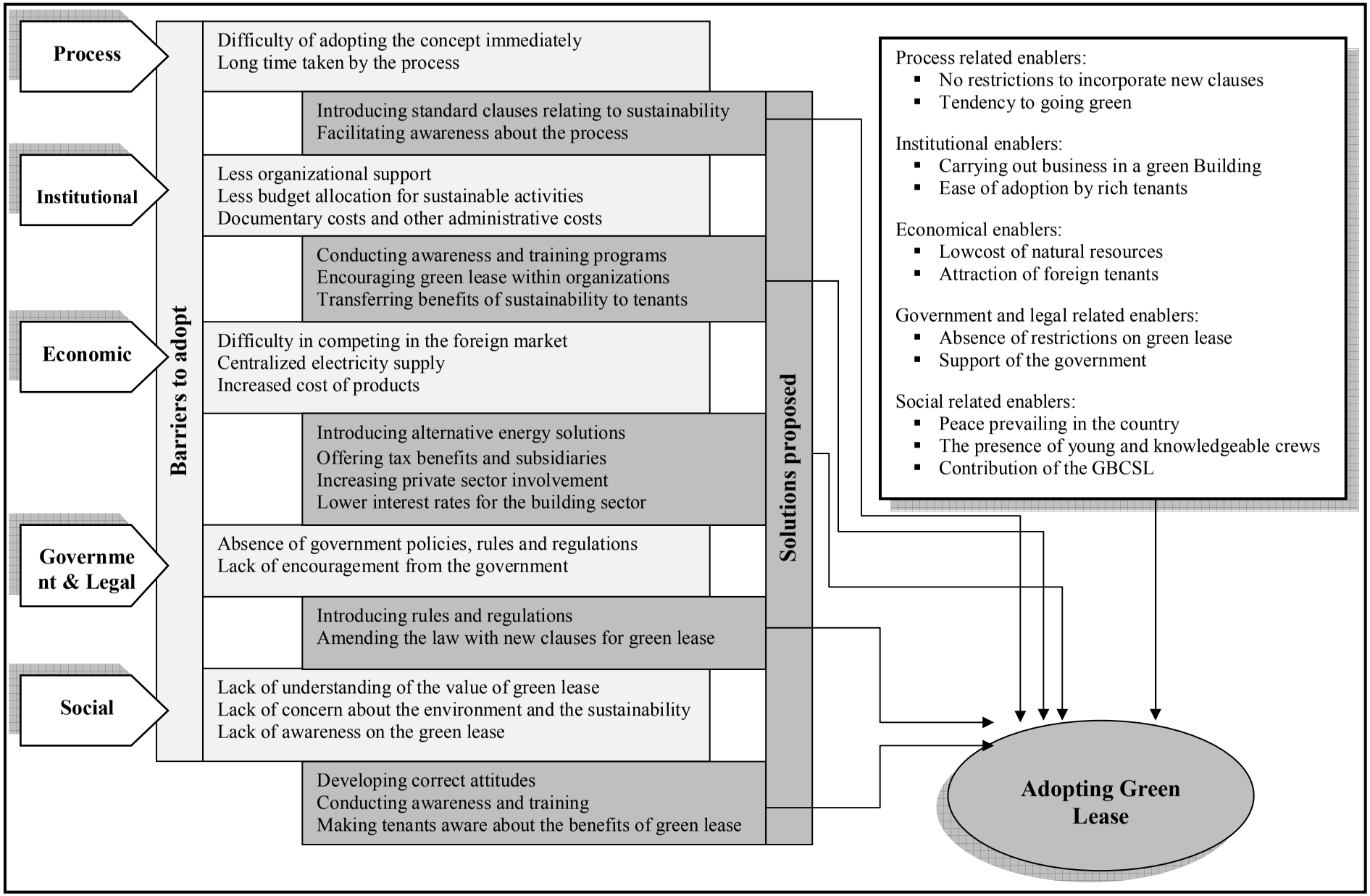

Table 1: Comparison of existing lease practices and green lease practices

Existing Lease Practices	Green Lease Practices
▪ There is no active participation towards the sustainability of the building	▪ There is active participation towards the sustainability of the building through the commitment of both the landlord and the tenant.
▪ Split incentive barrier is available	▪ No split incentive barrier available
▪ Little consideration given to green issues and environmental factors	▪ Considerable consideration given togreen issues and environmental factors
▪ There is little mutual understanding between the landlord and the tenant	▪ There is mutual understanding between the landlord and the tenant that helps to ensure sustainability
▪ Constant or increasing utility costs	▪ Minimum utility costs/service charges minimized
▪ Does not ensure a healthy work environment	▪ Ensures a healthywork environment to the occupants as well as to the community
▪ There are separate goals and objectives to be achieved	▪ There are shared goals and objectives to be achieved.

Source: (Bird &Harnandez, 2012; Pelenur&Cruickhank, 2012)

Table 2: Interviewee profile

		Respondents		
Technique		**Designation**	**Sector**	**Field of Experience**
Semi-structured Interviews	Case A	Senior Manager	Administrative	Facilities Management
		Manager		Legal
	Case B	Chief Engineer	Administrative	Maintenance
		Manager		Legal
	Case C	Administrative Executive	Hotel	Human Resource
		Manager		Facilities Management
Expert Interviews	E1	Professor	Government	22 years of experience in the field of green buildings and lease practices
	E2	Chief Executive Officer	Private	11 years of experience in the field of green buildings and lease practices
	E3	Legal Consultant	Private	24 years of experience in the field of green buildings and lease practices
	E4	Manager	Private	12 years of experience in the field of green buildings and lease practices
	E5	Chief Executive Officer	Private Sector	30 years of experience in the field of green buildings and lease practices

Table 3: Summary of key research findings

Categories	Barriers	Solutions proposed
Process	▪ Difficulty of adopting the concept immediately ▪ Long time taken by the process	▪ Introducing standard clauses relating to sustainability ▪ Facilitating awareness about the process
Institutional	▪ Littleorganizational support ▪ Lowbudget allocation for sustainable activities ▪ Documentary costs and other administrative costs	▪ Conducting awareness and training programs ▪ Encouraging green lease within organizations ▪ Transferring benefits of sustainability to tenants
Economic	▪ Difficulty in competing in the foreign market ▪ Centralized electricity supply ▪ Increased costs of products	▪ Introducing alternative energy solutions ▪ Offering tax benefits and subsidiaries ▪ Increasing private sector involvement ▪ Offering lower interest rates for the building sector
Government and Legal	▪ Absence of government policies, rules and regulations ▪ Lack of encouragement from the government	▪ Introducing rules and regulations ▪ Amending the law with new clauses for green lease
Social	▪ Lack of understanding of the value of the green lease ▪ Lack of concern about the environment and the sustainability ▪ Lack of awareness on the green lease	▪ Developing correct attitudes ▪ Conducting awareness and training ▪ Making tenants aware about the benefits of green lease