

## The Effects of Globalization on Multi-disciplinary consultancy Firms in Sri Lanka

**Meegahakotuwa M.G.A.L.I.B.**

Department of Building Economics, University of Moratuwa  
lakshan.ibm@gmail.com

**Perera B.A.K.S.**

Department of Building Economics, University of Moratuwa  
pererabaks@yahoo.co.uk

**Illankoon I.M.C.S.**

Department of Building Economics, University of Moratuwa  
cillankoon@gmail.com

### Abstract

*'Globalization' is a phenomenon that describes the accelerated pace at which interaction and expansion in cross-border trade activities, open markets, migration and technology advancement take place in today's world. Though hardly any institution in the world has been able to escape the effects of globalization, its effects on multi-disciplinary consultancy firms in Sri Lanka remains a subject little analyzed despite the fact that firms that are global in nature play a dominant role within the domestic construction industry. This research aims at identifying the magnitude of globalization processes on Sri Lankan multi-disciplinary consultancy firms in order to help them withstand the negative effects while upgrading existing practices in order to be more in tune with the demands of the modern world. The principal methodology used in the study is a preliminary survey, followed by a comprehensive questionnaire survey administered to professionals from multi-disciplinary consultancy firms. The study identified both positive and negative effects of globalization on local multi-disciplinary consultancy firms. Based on these results, a framework has been developed to help local multi-disciplinary consultancy firms withstand the negative effects while modifying current practices to sustain themselves in the face of globalization, which would require that they focus continually on innovation and research.*

**Keywords:** *Globalization, Multi-disciplinary consultancy firms, Sustainable practices, Framework, Sri Lanka.*

### Background

Globalization remains the "buzzword" of the decade, a topic of inexhaustible interest to its proponents and defenders alike. According to the Levin Institute (2012), it is not a new concept, one famous example being the Silk Road across Central Asia that connected China and Europe during the Middle Ages and which made possible trade deals between people and corporations alike during this time. These investments by individuals/ enterprises in other countries had the effect of bringing nations closer together than before. However, with the passage of time, the earlier cross-border interactions have changed and the pace of interaction has accelerated leading to a new awareness today of a more globalized world.

The first person to define globalization, Robertson (1992), for instance, described it as the process of compression of the world and the intensification of the consciousness of the world as a whole by its inhabitants. Since then, different definitions have emerged providing a foundation to define globalization as the connectivity of different parts of the world (National Geographic Education, 2013).

The International Monetary Fund (IMF, 2008) has defined the four basic aspects of globalization as trade and transactions, capital and investment movements, migration and movement of people, and dissemination of knowledge. These definitions demonstrate how globalization has

captured the imagination of the global citizenry today and that it is not a single event but a continuously evolving phenomenon carrying within it a spectrum of events. The construction industry too has not spread its effects. As Cardidge (2006) has pointed out, the construction industry is significantly affected by market globalization along with other business sectors. Consultants who fall within this category are no exception.

Construction consulting is a particular form of business consultation that focuses on all forms of construction such as buildings and civil work (Consulting.co.uk, 2012). The website quoted above also defines a consultant's duty as the accomplishment of best value for money on behalf of his/her client. Project planning, construction and risk management, schedule delay analysis, cost estimates, construction claims, expert testimony and litigation support are some of the other services provided by these professionals. The Sri Lankan definition, as given by the Institute for Construction Training and Development (ICTAD, 2007), describes an Engineer as the person named in the Contract Data (or any other competent person appointed by the Employer and notified to the Contractor) who is responsible for administering and supervising the execution of the work. Such a person may be an engineer, architect or any other technical person.

It is important to understand the extent to which Sri Lankan consultancy firms are connected with the outside world as a dominant party in the construction industry. According to Thenuwara (2002), trade liberalization introduced from 1977 has made it easy for Sri Lanka to connect with the outer world and for Sri Lankan consultants to become familiar with the way business is conducted in the world. In addition, Thenuwara says that to reap the full benefits of globalization as a country, it is necessary to develop a range of supervisory and regulatory policies and to be mindful of factors that affect economic growth. This is applicable to Sri Lankan consultancy firms too. Hence, consultants have been able to serve internationally while protecting their businesses and self-interests.

According to Sandanayake and Senaratne (2012), given the global challenges taking place in the industry, there is a need for the construction industry to innovate in order to respond successfully to these challenges. They also state that continuous innovation and research are ways to do that. This requirement applies equally to local consultancy firms as well because the firms that are major stakeholders in the national economy is undoubtedly adversely affected by this phenomenon. However, irrespective of the importance of innovation and research, adequate attention has not been paid to the effects of globalization on consultancy firms in Sri Lanka. The present paper attempts to fill this lacuna in research by focusing on the ways that local consultancy firms understand the effects of globalization and respond to them in a way that ensures their sustainability. The study hence focuses on multi-disciplinary consultancy firms performing in Sri Lankan context.

#### **Aim and objectives**

The study aims at researching how Sri Lankan multi-disciplinary consultancy firms can become sustainable in the face of the globalization processes. It has the following four objectives:

- Identifying the concept of globalization;
- Understanding the current status of consultancy firms in Sri Lanka;
- Analyzing the effect of globalization on multi-disciplinary consultancy firms in Sri Lanka;
- Proposing a framework for multi-disciplinary consultancy firms in Sri Lanka in order to enable them to sustain themselves in the face of globalization

#### **Research limitations**

The study scoped multi-disciplinary construction consultancy firms in Sri Lanka that are engaged in providing building and civil construction consultancy services. These firms offer total



consultancy solutions to their clients on architecture, engineering and quantity surveying aspects. Since the study looked at the multi-disciplinary consultancy firms as a whole, it did not focus on individual disciplines which could be considered as a limitation of this research.

### **Research methodology**

The research methodology involved a mixed approach constituting both qualitative and quantitative approaches (i.e., a preliminary survey and a questionnaire survey) followed by a literature synthesis. The literature synthesis helped to develop and refine the research problem using recently published literature such as books, journals, articles and electronic media. The views and thoughts expressed in which were reviewed, analyzed and critiqued with the intention of constructing the argument, which helped the researchers to accomplish the first objective and a portion of the second.

Subsequently, a preliminary survey was conducted with the use of semi-structured interviews to identify the contemporary consultancy practices that are aligned with globalization, thus fulfilling second objective. In addition, it helped to elicit opinions in the industry regarding multi-disciplinary consultancy practices that are already aligned with the processes of globalization while also enabling the researchers to identify the opportunities and threats incumbent upon such practices. Thus, it provided an entry point to the third objective, which is to analyze the effects of globalization on multi-disciplinary consultancy firms in Sri Lanka. As the next step, a questionnaire survey was carried out focusing on professionals employed at various multi-disciplinary consultancy firms in Sri Lanka. The collected data was analyzed with the help of one sample t-test. The results were helpful in developing a conceptual framework for multi-disciplinary consultancy firms in Sri Lanka on how to sustain themselves through the globalization process. These steps enabled the researchers to achieve the fourth objective, namely, to propose a framework for multi-disciplinary consultancy firms in Sri Lanka to sustain themselves in the face of globalization

### **The concept of globalization**

Globalization, according to Schiffers (2007), is on everyone's lips, from politicians to businesspersons. Though the processes and activities that are associated with globalization, as previously mentioned, are many centuries old, sustained focus on the concept has a much more recent history (Robertson, 2000). As Larsson (2001) describes it, globalization describes a process through which the world appears to shrink, distances get shorter and things move closer. One could say it is a concept that is still evolving in time.

The IMF (2012) defines globalization as the growing economic interdependence of countries worldwide through the increased volume and variety of cross border trade in goods and services, freer international capital flow, and the more rapid and widespread diffusion of technology. The IMF definition crystallizes the multidimensional and complex nature of globalization, which is difficult to encompass within a single scope.

A more recent definition describes globalization as the connectivity of different parts of the world (National Geographic Education, 2013). In addition, it speaks of the expansion in international political, economical and cultural activities, making people around the world experience similar experiences due to fast moving ideas, knowledge, people and goods around the globe. As suggested by the above definitions, the globalizing processes have made nations across the globe dependent on each other with regard to their relationships and activities.

According to Crosthwaite (2000), the role that the construction sector plays in economic development is significant in both size and role. Accordingly, given below is a detailed list of the features that connects globalization with economic perspectives for a more meaningful understanding. Devereux (2007) listed the following features as characteristics of globalization:



- Interconnectedness
- Reduction of distance in terms of time and space
- Rapid transfer of ideas, goods and services powered by advances in ICT
- Increased awareness of the global phenomena in people's lives
- Globalization of culture and economic activities
- Migration of people
- Decrease in the significance of identities
- Anti-globalization movement to resist economic and cultural globalization

The above features reveal that globalization has left its imprimatur on the behaviour of people everywhere. Supporting this idea, Bhagwan (2009) saw globalization as being driven by a combination of economic, technological, socio-cultural, political and biological factors and stated that it is a complex set of processes rather than a single one. This multi-dimensional process of globalization exhibits unique facets, which distinguishes it from earlier phases of the world economy's internationalization (Economic Commission of Latin America [ECLAC], 2002).

Being a popular concept and a global phenomenon, globalization consists of its own set of advantages and disadvantages, which creates awareness in people of themselves as members of a global nation. Dubrin (2011) categorized these advantages and disadvantages as follows:

**Table 5: Advantages and Disadvantages of Globalization**

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>• Global outsourcing</li> <li>• Increase in productivity</li> <li>• Reduction in global poverty</li> <li>• Integrated economies</li> <li>• Open economy</li> <li>• International trade</li> <li>• Collateral R &amp; D projects</li> <li>• Experienced work force</li> <li>• Revitalized economy</li> <li>• Inexpensive overseas investments</li> </ul>	<ul style="list-style-type: none"> <li>• Unemployment</li> <li>• Competitive pressure</li> <li>• Reduced benefits to lower costs</li> <li>• Unfair increments in executive wages</li> <li>• Loss of national pride</li> </ul>

Source: Essentials of Management, Dubrin A.J.

According to some authoritative sources, Sri Lanka as a nation has benefited from globalization in the recent past. International Labour Organization (ILO, 2008) has stated that Sri Lanka is marching towards development despite many challenges, attempting to reap the maximum benefits of globalization while minimizing costs. The Central Bank of Sri Lanka (CBSL, 2012) has asserted that the Sri Lankan economy, despite global and domestic challenges, has grown at a healthy rate of 6.4 in the year 2012. In addition, according to World Bank (2013) statistics, Sri Lanka has become a middle-income country, thereby giving access to the International Bank for Reconstruction and Development (IBRD).

The above information confirms that Sri Lanka is starting to face the challenges of development with an awareness of the strengths and weaknesses of globalization. Hence, first it is need to look at the nature and behaviour of Sri Lankan consultancy firms before proceeding further with the study of these firms' response to globalization.



### The status of consultancy firms in Sri Lanka

The construction Industry is not an isolated sphere but consists of many other sub-sectors. Hillenbrandt (as cited in Ofori, 1990) professed that the construction process covers parties involved in it as well as suppliers of industry inputs to a certain extent. This view underlines the fact that the construction industry is not a stand-alone entity but is a combination of a few sectors.

Figure 1 below demonstrated that apart from the client and the professional consultants, civil and specialist engineers are dominant parties in the industry compared to building contractors, manufacturers and suppliers.

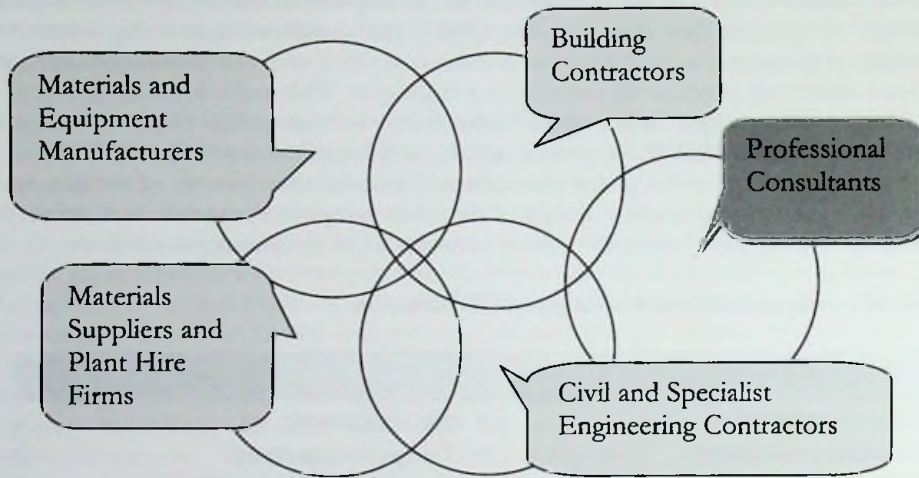


Figure 1: Parties Involved in the Construction Industry

Source: (The Construction Industry, Ofori, G.)

Among them, consultants have been identified as experts and strategists regardless of their specialization and they are hired by businesses to fix a problem that they have recognized but that they are unable to remedy internally (Consulting.co.uk, 1). The Royal Institute of British Architects ([RIBA] (cited in Chinyio, & Olomolaiye 2009) defined 'consultants' as architects, geotechnical engineers, structural engineers, building services engineers and surveyors who are mainly contributing their professional knowledge to a project throughout the design, tendering, and construction stages. Ip (2008) stated that a 'consultant' is the administrator of the contract. Accordingly, construction consulting is a specialized form of business consultation that focuses on all forms of construction, most notably building construction.

The status of construction consultancy in Sri Lanka can be determined by the distinct publications illustrating the scope of consultancy services published by the ICTAD for the domestic. ICTAD (2002) has shown that the success of any project principally depends on consultants who plan, design and have a greater responsibility towards the client including a high standard of competency and a high degree of professionalism.

Orienting the discussion towards consortium/multi-disciplinary consultancy (MDC) firms, Clark (2008) has shown that firms that provide all construction associated disciplinary services for projects beneath one roof are recognized as MDC firms. However, for both MDC and non-MDC firms functioning in Sri Lanka, ICTAD as the regulatory body has published a set of regulations to be adhered to by such firms.

Accordingly, the different duties and responsibilities that consultants and MDC firms must shoulder vis-à-vis, construction related activities could be listed as follows as derived from ICTAD (2002):

- Skill, Care and Diligence
- Impartial advisor
- Provision of expertise, Technical advice and Skills
- Supervision or Inspection of work
- Alterations to design and Variation instructions
- Certificate of completion
- Issue of certificates and payments to contractors and suppliers

ICTAD (2002) has specified consortium consultancy services in fulfilling construction consultancy works as listed below. It has further dictated that firms should assign to clients a consortium of consultants who are able to undertake all the consultancy services required by a particular project.

- Feasibility phase
- Schematic design phase
- Design development phase
- Tender document phase
- Bidding and negotiating phase
- Construction phase
- Maintenance phase

In contrast to the role currently played by consultancy firms and multi-disciplinary consultancy firms, it is evident that they are a key party in the Sri Lankan Construction Industry. The performance of multi-disciplinary consultants that are identified by ICTAD as capable of better execution of services however seems traditional, working with outworn methods rather than experimenting with something new or adapting themselves to the demands of the new. Thus, in order to ready themselves to play their new roles, these firms would have to rethink their current roles in the construction industry and determine what their new roles might be in the increasingly more globalized world. Hence, the study aims to look at the connectivity between globalization and the construction industry in Sri Lanka.

#### **Globalization of Sri Lankan consultancy firms through the construction industry**

According to Thalagodapitiya (2010), the impact of globalization on the Sri Lankan construction industry has been significant in the past few decades. Sri Lanka's investment in infrastructure has opened up opportunities for its consultancy sector within the country, and its excellent connectivity via internet and telecommunication has opened doors for Sri Lankan consultants to engage in work overseas. Mendis (2009) has stated that Sri Lanka has made much progress in the consultancy sector, including the building of new roads, which has opened up opportunities for its consultants in the global arena. Confirming this, Ellis (2011) has stated that construction/consultancy is an export service of Sri Lanka.

The situation outlined above highlights the impact of globalization on MDC firms in the Sri Lankan construction industry. Therefore, the well-being and future of Sri Lankan MDC firms in the long run depend on analyzing the various dimensions to the effects of globalization on such firms.

Sandanayake and Senaratne (2012) have stated that there is a need for the Construction Industry to innovate in order to respond successfully to the global challenges facing the Industry as lack of innovation and research would lead to failure. Hence, a discussion on the effects of globalization on Sri Lankan MDC firms has become vital. The preliminary survey and questionnaire survey address this requirement.



## Preliminary survey

The preliminary survey was conducted based on semi-structured interviews with four versatile construction consultancy related professionals who have significant experience in the subject from three distinguished consultancy firms in Sri Lanka.

At the inception, a set of contemporary MDC practices in Sri Lanka as derived from the literature survey was provided for consideration by the interviewees, ranging from the feasibility phase to the maintenance phase. However, it should be noted that these contemporary practices were the outcome of previous phases of globalization. Moreover, the results obtained from the literature survey and actual MDC practices were strikingly similar. Secondly, the existing consultancy practices/tendencies, suggestions to improve current practices and the steps followed by the consultants to avoid threats, all of which were aligned with globalization, were identified. Hence, it is possible to identify an evolution in practices.

The measuring criteria to capture the practices were obtained from the literature survey and the findings were categorized under a few headings as given in Figure 2 above. The highlighted categories were identified as the results of the preliminary survey. These derived categories contained both the positive and negative trends of globalized practices.

Practices/tendencies and suggestions recognized under the preliminary survey, after categorizing under above headings through a content analysis done with NVivo, were then subjected to an industrial evaluation in order to identify their impacts and acceptance in order to determine the effect of globalization respectively.

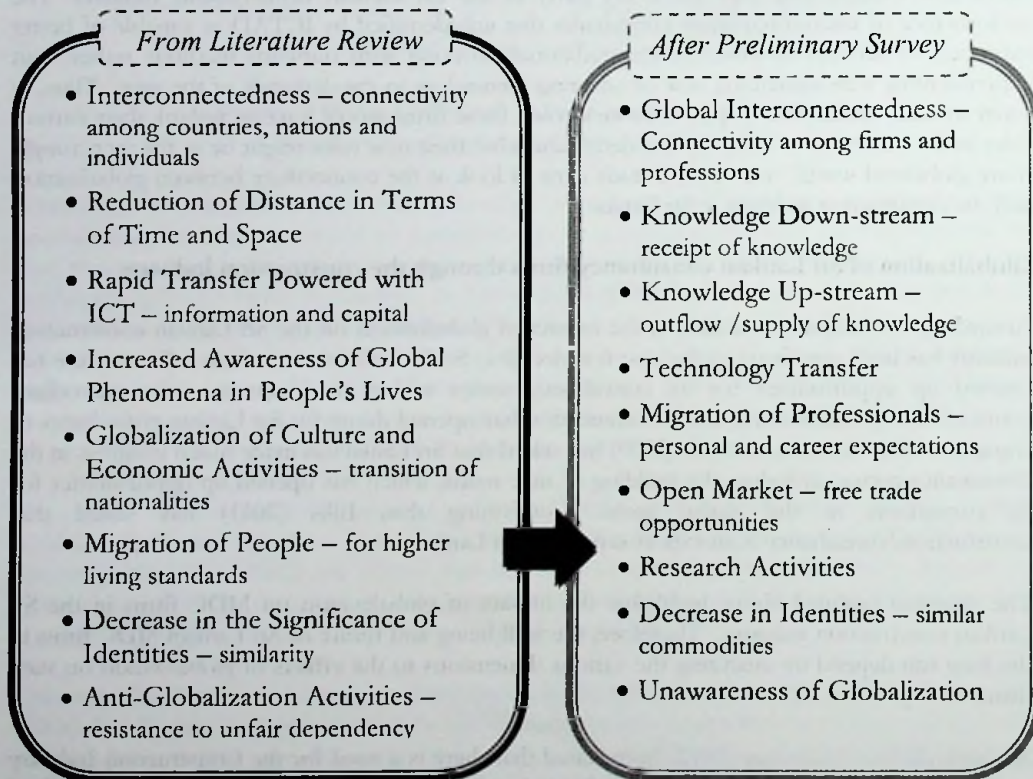


Figure 2: Results of the Preliminary Survey

### Questionnaire survey

A pilot survey was initially carried out to ascertain the feasibility of the research before meeting the designated respondents who are MDC professionals such as architects, engineers, quantity surveyors (Qs) and town planners (TPs). Out of the 92 questionnaires distributed among five of the six functioning MDC firms in Sri Lanka, 52 valid responses were obtained resulting in a 58.7% response rate because those working at MDC firms are very busy. Proportionately, it was approximately 50% of the concerned population. A cross-section of respondents is given in Table 2, which validates the sample.

Table 2: Cross-section of Respondents

Professionals	Number	Work Experience				Foreign Exposure
		0-5	5-10	10-15	15 <	
Architects	18	38.9%	27.8%	5.6%	27.8%	33.3%
Engineers	16	31.3%	31.3%	25.0%	12.5%	50.0%
Qs	19	47.4%	21.1%		31.6%	36.8%
TPs	1	100%				
Total	54					

When obtaining responses for hand-delivered questionnaires, assistance was provided, via face-to-face discussions/explanations, to respondents to help them understand the intended meaning of the categories that had been developed on concepts like globalization as well as statements (practices/tendencies and suggestions) in the questionnaire. It helped the respondents to answer easily and effectively, concluding the questionnaire survey phase of the study successfully.

The consultancy practices thus elicited by the survey were aligned with globalization and the appropriately formulated suggestions were put into a statistical evaluation with the help of one sample t-Test and were checked for significance of each practice and the acceptability of each suggestion. The significance was checked in relation to a five-digit response scale, which can consider both extremities. Hence, the t-Test was carried out as a two-tailed test. The significance of the test hypotheses (statements) was identified with respect to the middle value of the response scale, which is three (3 – average/neutral). Accordingly, the hypotheses can be stated as follows:

- $H_0: \mu_{\text{sample}} = 3$  (a particular statement having average effect/suggestion is neutrally accepted - null hypothesis)
- $H_1: \mu_{\text{sample}} \neq 3$  (a particular statement having non-average effect/suggestion is non-neutrally accepted - alternative hypothesis)

The significance of statements were to be determined with  $p_{\text{cal}}$  value (probability) which resulted from the t-test in contrast to 95% confidence interval as explained in Figure 3 below.

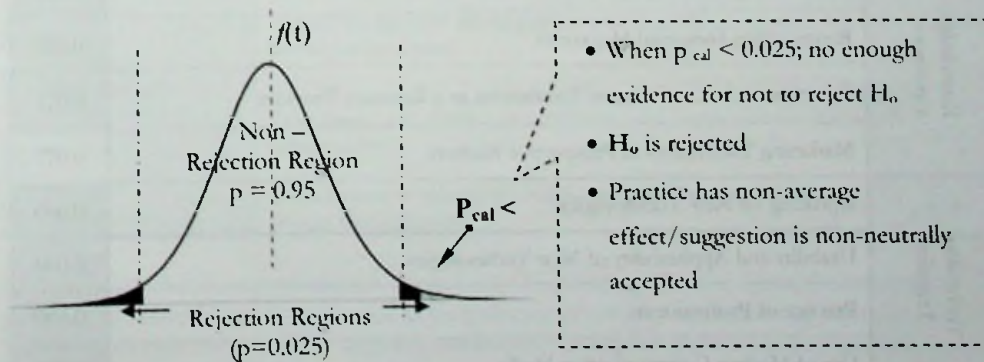


Figure 39: Hypothesis Testing



### The effect of globalization on MDC firms in Sri Lanka

The analysis of current consultancy practices aligned with globalization demanded a separation between positive and negative practices/tendencies according to the responses received. Such a separation was helpful for a better understanding of the multi-faceted impacts of globalization. A detailed analysis to identify the level of each impact on MDC firms was done based on this separation.

Determination: If a practice/tendency has acquired,

**Percentage response  $\geq 50\%$ :** practice/tendency is positive

**Percentage response  $< 50\%$ :** practice/tendency is negative

This separation resulted in 23 positive practices and 5 negative practices from the 28 statements given in the questionnaire for consideration under eight categories.

#### *The level of effect by positive practices on multi-disciplinary consultancy firms*

The current consultancy practices having a considerable/higher effect on MDC firms are highlighted in Table 3 according to the formulated results. Provided  $p_{cal}$  illustrated the significant levels, where values closer to the non-rejection region imply lesser significance and vice versa.

As the Table shows, aspects such as technology transfer, knowledge down-stream, knowledge up-stream and open market conditions are located at the top of the effects ladder in comparison with other aspects. Although these have been previously identified as the outcomes of globalization, the present study is the first where the level of effect of each, in terms of up-to-date sensors, have been measured for modern usage.

**Table 3: Significance Values ( $p_{cal}$ ) for Existing Positive Practices/Tendencies**

Category	Existing Positive Practices/ Tendencies	$p_{cal}$
Global Interconnectedness	Use of International Standards	0.000
	Regional & International Co-operation among Professionals	0.185
	Pressure on Firms to Perform on a Global Level	0.142
	Following Business Practices	0.001
Knowledge Down-stream	Collaborative Projects with Other Countries	0.001
	Ability to Transform Foreign Theories into Local	0.017
	Use of Industrial Magazines, Journals	0.007
	Participating in Conferences, Exhibitions	0.000
Knowledge Up-stream	Undertaking of Foreign Projects	0.000
	Representing Industrial Magazines	0.020
	Participating in Conferences/Exhibitions as a Resource Provider	0.011
	Marketing Themselves in Prospective Markets	0.077
Technology Transfer	Updating on New Technologies	0.000
	Usability and Applicability of New Technologies	0.000
	Practice of Professionals	0.000
	Use of Modern Communication Media	0.000

Category	Existing Positive Practices/Tendencies	
Migration of Professionals	Professionals Practicing an International Career	0.000
	Reputed Place for Well-Experienced Professionals	0.018
Open Market	Foreign Direct Investments (FDI)	0.004
	Awareness of Regional and International Trade Agreements	0.008
	Establishing Branches of Firms in Foreign Markets	0.505
Research Activities	Projects Giving Optimum Benefits to the Public	0.001
	Projects Which Can Change Attitudes of Users	0.010

Additionally, many of the identified existing positive practices/tendencies of globalization, which were on a par with their level of impact, exercise significant effect over MDC firms in Sri Lanka according to the analysis done above. A few of them (four in number) have an average or less-than-considerable impact on the changing dimensions of consultancy services provided by the Sri Lankan MDC firms.

*Level of effect by negative practices on multi-disciplinary consultancy firms*

Table 4 below identifies conclusively the level of negative impact of existing negative practices/tendencies that are considered. Similar to previous findings, the impact level of known influences have been tabulated here under a negative brand.

**Table 4: Significance Values (p<sub>cal</sub>) of Existing Negative Practices/Tendencies**

Category	Existing Negative Practices/Tendencies	P <sub>cal</sub>
Global Interconnectedness	Threats generated by foreign consultancy firms established in Sri Lanka	0.096
Migration of Professionals	Lack of professionals for in-house activities due to migration	
Unawareness of Globalization	Lack of awareness of firms that prevent them from determining and refraining from riskier practices on consultancy aspects (e.g., pseudo architecture)	0.471
	Reluctance of firms to compete for international project opportunities	1.000
	Unawareness of emerging changes in consultancy practices (e.g., project management)	0.211

Except for the dearth of professionals for in-house functioning of MDC firms, the other negative practices considered have been marked as insignificant practices / tendencies by the respondents. Therefore, though they prevail as negative tendencies, the impact of their accumulated risk on the proper functioning of MDC firms is minor.



Thus, to sum up, the findings of the analysis on the effects of globalization on MDC firms in Sri Lanka shows that, when considered as influences of globalization, 19 out of the 23 existing positive practices/tendencies under consideration have a significant effect on MDC firms in Sri Lanka. The rest were found to have only average significance. Simultaneously, 1 out of 5 of the existing negative practices/tendencies under consideration was found to have withholding or negative effects according to respondents. These findings address the third objective of the research study as specified above.

#### Activities to enhance existing practices and to avoid remaining threats

Various suggestions that were obtained during the preliminary survey with respect to derived categories were used as industry opinions in order to judge the acceptability of implementation requirements. These suggestions delineate both how to improve existing practices and to defend against threats experienced by local MDC firms during the current phase of globalization, focusing on the sustainable ability of firms for an oracular mission. However, their practical value was suggested in the latter framework derived from the findings of the survey.

#### *Level of acceptance of suggestions to enhance existing practices*

Table 5 below tabulates the obtained significance values through the t-test for suggestions that were considered based on the received responses.

**Table 5: Significance Values ( $p_{cal}$ ) of Suggestions to Enhance Existing Practices**

Suggestion	$P_{cal}$
<b>Global Interconnectedness</b>	
Local practices need to conform to global standards more rapidly than they do now	0.000
Setting up help desks at regional or international basis is vital for consultancy work	0.000
<b>Knowledge Down-stream and Up-stream</b>	
Encouraging professionals to engage in career development	0.000
Motivating professionals to take part in international level events such as conferences, exhibitions and official tours	0.000
<b>Technology Transfer</b>	
Recognizing the profile/requirements of local construction firms in order to improve local consultancy firms	0.000
The need for firms to follow precedence studies ( <i>i.e., starting from where they have stopped</i> )	0.000
<b>Open Market</b>	
Understanding global market trends and business practices for the effective functioning of firms	0.000
Undertaking new consultancy aspects ( <i>e.g., project management for foreign funds and donations</i> )	0.000

Suggestion	P <sub>cal</sub>
<b>Research Activities</b>	
Commencing proper database handling for large projects which would be helpful with regard to possible future projects	0.000
Expending efforts on project model testing for feasible, significant projects	0.000
<b>Unawareness</b>	
Improving awareness of professionals regarding advantages of global effects	0.000

The p<sub>cal</sub> values show that almost all the suggestions represent the rejection region, being non-neutrally /significantly accepted. Some suggestions show the possibility of improvements with knowledge usage (e.g. professional helpdesks), technology usage and avenues for future practice enhancements through open market and research activities, which are not yet in operation in Sri Lanka at a satisfactory level. Others addressed certain deficiencies such as lack of awareness of global advantages.

*Level of acceptance of suggestions to avoid remaining threats*

Table 6 carries the calculated significance values of suggestions that were evaluated in order to identify potential activities that needed to be implemented in order to avoid the possible threats faced by MDC firms in Sri Lanka. These suggestions have been culled from the results of the preliminary survey.

**Table 6: Significance Values (p<sub>cal</sub>) of Suggestions to Avoid Remaining Threats**

Suggestion	P <sub>cal</sub>
<b>Global Interconnectedness</b>	
Enhancing the legal system to provide the right conditions to establish foreign firms ( <i>e.g., established in association with local firms</i> )	0.000
Allowing firms to start practicing as separate firms ( <i>non-multi disciplinary firms</i> )	0.003
<b>Knowledge Down-stream and Up-stream</b>	
Enhancing legal measures and ensuring the adaptability of down streamed knowledge to suit local requirements	0.000
<b>Technology Transfer</b>	
Introducing advanced standards for compatibility tests regarding new technologies	0.000
<b>Migration of Professionals</b>	
Offering attractive and reasonable remunerations to professionals	0.000
Appreciating professional values and employing them appropriately	0.000
<b>Unawareness</b>	
Convincing clients about the benefits of modern innovations ( <i>e.g., energy efficient buildings</i> )	0.000



The two types of suggestions elicited from the study demonstrate that local MDC firms need to be encouraged to adopt and adapt appropriate responses in order to withstand the possible adverse consequences of current globalizing processes.

The t-test underscores both the significance of suggestions made as well as the urgent need to respond to those suggestions by firms. The suggestions obtained under the preliminary survey that are evaluated here also anticipate solutions as envisaged by professionals. Understanding the level of impact of existing practices/tendencies and by evaluating the suggestions made to withstand those impacts, local MDC firms would be better able to sustain themselves at a global level. This paper intends to develop a framework for such purposes.

#### **Framework for sustainability of MDC firms in Sri Lanka against globalization**

Firstly, the framework proposed keeps in mind the magnitude of the effects of globalization experienced by MDC firms in Sri Lanka. Secondly, it keeps in mind the need for the improvement of management prospects for the betterment of the organization. Figure 4 (in page 15) gives the conceptual framework developed based on the findings of the research study that also keeping in sight the two considerations outlined above.

Accordingly, the management of the MDC firm, or professionals who are employed in such firms, have to identify the status of the firm vis-a-vis globalization (see Step 1). It would permit the management to evaluate their current practices/tendencies for the level of impact of globalization as well as their positive or negative aspect (see Step 2). The results would enable the management to decide on whether to upgrade current practices and/or to remove or rectify such practices where necessary (see Step 3). With regard to the implementation of suggestions for improvement derived from the research, they could be used either as an internal or external application where appropriate (see Step 4). Therefore, activities to enhance current practices and activities to avoid the remaining threats from globalization effects are expected to bring Sri Lankan MDC firms on sustainable grounds vis-a-vis globalization.

The researchers recommend the use of the framework developed in this study only by versatile professionals operating at the management level of Sri Lankan MDC firms who possess the decision-making skills to judge the requirements of and uplift the firms that they work for. Being frequently updated on the effects of globalization yields benefits to the professionals individually as well as to the Sri Lankan MDC firms, in terms of being able to offer a better construction consultancy service.

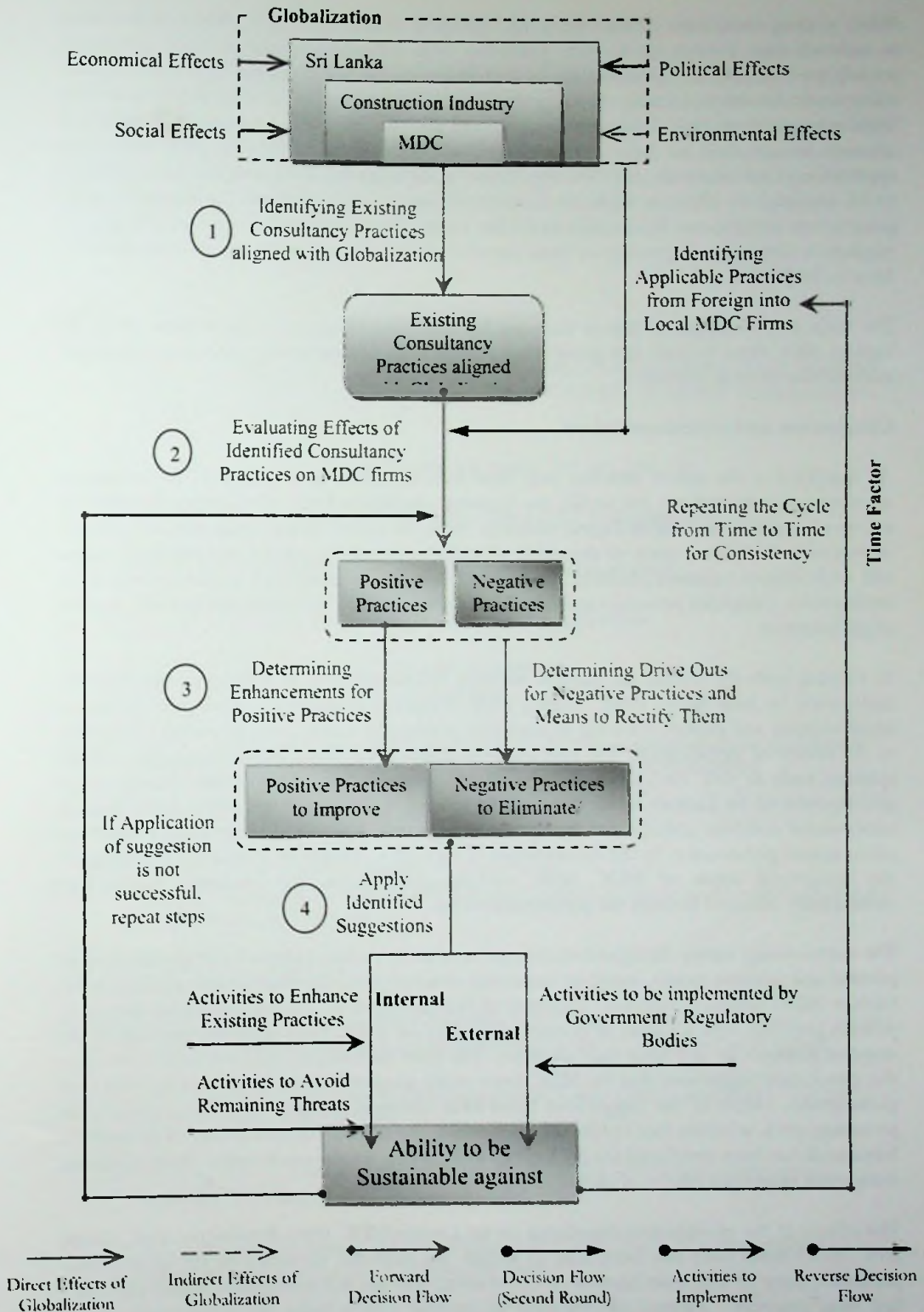


Figure 4: Framework for Multi-disciplinary Consultancy Firms in Sri Lanka to Sustain against Globalization



When availing themselves of the framework, the MDC management or professionals first need to estimate their current (up to date) practices. This estimation should be made against the backdrop of the effects of globalization on such practices. By factorizing practices separately, the users would be able to identify certain practices such as those up to standard, those demanding improvements those that should not be continued and those that can be rectified. Prompt and accurate identification of these different types of practices should then be subjected to the application of necessary actions. The application of the suggestions made in the framework has to be executed by different types of functionaries such as professionals, management or by government or regulatory bodies such as the law courts. In order to activate regulatory bodies to implement activities, the practice or issue identified has to be one that is common to all MDC firms in Sri Lanka.

The main point highlighted here is the need for consistent execution of the framework by Sri Lankan MDC firms because that would enable them to remain sustainable in the dynamic global construction arena in the end.

### **Conclusions and recommendations**

As described at the outset, scholars over time have described globalization as the continued compression/shrinking of the world, the growing interdependence of countries in terms of economic activities and technological exchange or as the socio-cultural, economic and political connectivity of different parts of the world which bring countries, nations and individuals more and more onto a common platform. The more visible phenomena such as free trade activity, connectivity, composite processes and the global status of local lives exhibit the evolving process of globalization.

In keeping with the above, the present research has shown how all aspects to the activities undertaken by local MDC firms, ranging from designing, estimating, tendering, construction administrating and dispute resolving to feasibility testing, the maintenance phase are susceptible to the effects of globalization. The core business practices of MDC firms are empowered with qualities such as skill, care, diligence, impartiality and expertise. In addition, the impact of globalization on Sri Lankan MDC firms can be gauged by the use of the performance level of construction activities underpinned by reports of regulatory bodies and the protective measures taken against globalization by the Government of Sri Lanka. Therefore, a balanced evaluation of the recognized status of MDC firms vis-a-vis globalization was necessary, which was subsequently obtained through the preliminary survey.

The questionnaire survey distinguished current consultancy practices aligned with globalization as positive and negative trends, based on responses obtained from the professionals working at Sri Lankan MDC firms. A statistical valuation of the two types of practices indicated that many positive practices have a higher or considerable effect on MDC firms while the majority of the negative practices do not have such an effect. The main objective of the study was to measure the appropriate suggestions that the MDC firms could adopt in order to withstand the effects of globalization. Most of the suggestions listed have obtained a higher level of acceptance for providing quick solutions that can be easily executed. As the final two objectives of the study, a framework has been developed for Sri Lankan MDC firms, which would enable them to sustain themselves against the effects of globalization.

The effects of the globalization experience on Sri Lankan MDC firms demonstrate that, though local MDC firms have not been able to escape the different attributes of the globalization processes, some of which are harmful or detrimental, they are at a manageable level except for a few risky practices. Prompt identification of harmful effects helps the management or the professionals to apply the necessary precautions, thereby minimizing their detrimental impacts and to foreground their more beneficial dimensions.

The gist of this particular research can be summed up as the identification of the level of effects acting on Sri Lankan MDC practices that fall within the spectrum of forces identified as globalization rather than identifying the different forces separately. In addition, the prospective aim is to energize or restructure the current MDC practices in order to make them compatible with the new propensities of globalization. It should be mentioned that in future, the MDC firms discussed here would engage in business not exclusively within the Sri Lankan context but would also expand outwards beyond national borders to become globalized MDC practitioners. Hence, their aim should be to assure themselves of sustainability globally in anticipation of a future as a globally co-operative construction consultancy service imbued with a sense of social responsibility.

## References

- Bhagwan, V. (2009) Globalization: kar lo duniya muthi mein. *Pratyyogita Darpan*, 4(42). Available from <http://books.google.lk/books?id=7vkmhVEk8QEC&printsec=frontcover#v=onepage&q&f=false>
- Cartlidge, D. (2006) *New aspects of quantity surveying practice* (2<sup>nd</sup> ed.), 238-239.
- Central Bank of Sri Lanka (CBSL) (2012) *Annual Report 2012*. Colombo: CBSL.
- Chinyio, E., and Olomolaiye, P. (2009) *Construction stakeholder management*.
- Clark, J.P. (2008). *Practical design, construction and operation of food facilities*.
- Consulting.co.uk. (2012) *Construction consultants*. Available from <http://www.consultants.co.uk/consultants>.
- Crosthwaite, D. (2000) The global construction market: A cross-sectional analysis. *Construction Management and Economics*, 18(5), 619-627. doi: 10.1080/014461900407428
- Devereux, E. (2007) *Understanding the media* (2<sup>nd</sup> ed.).
- Dubrin, A.J. (2011) *Essentials of management*. Available from [http://books.google.lk/books?id=PRW0ozVbsekC&dq=pros+and+cons+of+globalization&source=gbs\\_navlinks\\_s](http://books.google.lk/books?id=PRW0ozVbsekC&dq=pros+and+cons+of+globalization&source=gbs_navlinks_s)
- Ellis, R. (2011) *Sri Lanka* (4th e.d.).
- Economic Commission of Latin America (ECLAC) (2002) *Globalization and development*. Available from <http://www.eclac.org/publicaciones/xml/5/10035/summaryINGLES.pdf>
- Institute for Construction Training and Development (ICTAD) (2002) *Client guide : Selection of Consultants*. Colombo: ICTAD.
- Institute for Construction Training and Development (ICTAD) (2002) *Consultancy services*. Colombo: ICTAD.
- Institute for Construction Training and Development (ICTAD) (2007) *Standard bidding document: Procurement of works* (2nd ed.). Colombo: ICTAD.
- International Labour Organization (I.L.O) (2008) *Decent Work Country Programme - Sri Lanka: 2008 - 2012*. Colombo: I.L.O.



- International Monetary Fund (IMF) (2008) *Issues Brief*. Washington, DC: IMF.
- International Monetary Fund. (2012) *Research at the IMF*. Available from <http://www.imf.org/external/research/index.aspx>
- Ip, S. (2008) *The role of the consultant in construction*. Available from <http://www.cwilson.com/publications/construction/role-of-the-consultant-in-construction.pdf>
- Larsson, T. (2001) *The race to the top: The real story of globalization*.
- The Levin Institute – The State University of New York. (2012) *What is globalization?*. Available from <http://www.globalization101.org/what-is-globalization>
- National Geographic Education. (2013) *Globalization*. Available from <http://education.nationalgeographic.com/education/encyclopedia/globalization>
- Mendis, M. (2009) Sri Lanka country paper. In *Proceedings of TCDPAP & FIDIC / ASPAC Conference*, (pp. 4 – 7). Retrieved from <http://scaef.org.np/conference/conference/pdf/Session2/7.%20SL%20Country%20Paper%20TCDPAP%2009.pdf>
- Ofori, G. (1990) *The construction industry: Aspects of its economics and management*.
- Robertson, R. (1992) *Globalization: Social theory and global culture* (Reprint ed.).
- Robertson, R. (2000) *Globalization: Social theory and global culture*. Available from [http://books.google.lk/books?id=eVMmonrrZDkC&printsec=frontcover&dq=Globalization:+Social+Theory+and+Global+Culture+\(2000\)&hl=en&sa=X&ei=VTyaUe30BIqCrAeBxYHwCA&ved=0CCsQ6AEwAA#v=onepage&q=Globalization%3A%20Social%20Theory%20and%20Global%20Culture%20\(2000\)&f=false](http://books.google.lk/books?id=eVMmonrrZDkC&printsec=frontcover&dq=Globalization:+Social+Theory+and+Global+Culture+(2000)&hl=en&sa=X&ei=VTyaUe30BIqCrAeBxYHwCA&ved=0CCsQ6AEwAA#v=onepage&q=Globalization%3A%20Social%20Theory%20and%20Global%20Culture%20(2000)&f=false)
- Sandanayake Y.G., and Senaratne. S. (2012) *Proceedings of World Construction Conference*. Sri Lanka: Ceylon Institute of Builders.
- Schiffers, S. (2007) Globalization shakes the world. *BBC News*. Available from <http://news.bbc.co.uk/2/hi/business/6279679.stm>, Features January, 21.
- Thalgodapitiya, D. (2010) Challenges for domestic construction industry. *Daily News*. Retrieved from <http://www.dailynews.lk/2010/03/15/bus19.asp>
- Thenuwara, H.N. (2002) Globalization and Sri Lanka: The economic impact. *Sri Lanka Journal of Social Sciences*, 26(1&2), 5-20.
- World Bank. (2013) *Sri Lanka overview*. Available from <http://www.worldbank.org/en/country/srilanka/overview>