# DIFFUSION, ADOPTION AND NON-ADOPTION OF ABC IN A DEVELOPING COUNTRY: CASE STUDY EVIDENCE FROM SRI LANKA

Harin de Silva Manchester Metropolitan University, UK

#### Abstract

The paper discusses the adoption of ABC and the role played by consultants, academics and the profession, in propagating ABC in a developing country, Sri Lanka. Further the influences of the supply side of the information field, the cultural factors and how ABC is constituted in organisations is discussed. Interviews were conducted on consultants, some users, and prospective adopters of ABC. The factors such as the size of the organisation, uncertainty in the socio-political and the economic environment, cost-benefit of implementation, innovation, competition in the economic environment, the information field and the cultural influences that the organisations are subject to have influenced the adoption of ABC.

**Keywords**: Diffusion, adoption, non-adoption, case study, ABC, information field, consultants, organisation size, competition, uncertainty, innovation and cost benefit.

## Introduction

Sri Lanka has had a significant influence from developed nations on its professions including the accountancy profession. For example, commerce and industry in the country has had exposure to advanced management accounting tools and related attributes, due to global technological advances in communication, which promote easy access to information, publications, professional development, consultants, as well as accounting staff migration.

This study is about the diffusion of Activity Based Costing, as a management accounting tool established in the developed world, to organisations in Sri Lanka. The analysis focuses on issues relating to the supply side of the adoption process and to the use of ABC in Sri Lanka.

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# **Objectives**

The objective of this paper is therefore to study an example of the diffusion and innovation<sup>1</sup> of management accounting in commerce and industry in Sri Lanka. This is done by identifying the main players contributing to the supply side, and the barriers<sup>2</sup> which they face to achieving the successful development of management accounting practices. The focus is on the role of consultants and other contributors to the supply side of diffusion process in, propagating Activity Based Costing (ABC), for product costing and Activity Based Management for managerial decision making.

In pursuit of this aim, the following issues were addressed.

Firstly, the part played by consultants and the accounting profession, is identified, as these players have already been shown to be influential on the supply side of diffusion in developed countries (Ax and Bjornenak, 2005). In the Sri Lankan context, it is important to identify how ABC has attracted attention amongst prospective adopters, including the roles played by consultants, academics and others who have acted on the invitation of members of the profession to promote the technique, as well as the professional bodies which have played a role in drawing attention and developing awareness amongst prospective adopters. The literature discussed in this paper therefore highlights the information field<sup>3</sup> which has played an important role in triggering the decision making process that led to the adoption or non-adoption of ABC (Appendices A and B) by Sri Lankan organisations.

The activity of consultants can be expected to help determine acceptance of the concepts by the accounting community and industry (Bjornenak, 1997). With the development of ABC in developed countries, one would expect there to be a lagged innovation in the form of similar ABC applications in the developing economies. Consultants and early adopters being supply side drivers of the information field, need to find ways of reducing barriers and resistance to change, to spread innovations in ABC amongst the prospective adopters (eg. Ax and Bjornenak, 2005, Bjornenak and Mitchell, 2002)<sup>4</sup>.

Secondly, the period chosen for the study is important, as there had to be a time lag for ABC to reach the more developing economies subsequent to its earlier adoption in developed economies. The paper considers a period of ten years last dating the emergence of ABC during which Sri Lankan industry and commerce were exposed to ABC and the intensity of supply side activity. Each consultant's activities in relation to promotion and development of ABC was studied over a period of ten years from 1995 to 2005 to provide information about the role, the consultant played over the period. This involved interviewing managers about the

promotion and development of ABC, gathering information relating to information on adopters and non-adopters and information relating to seminars, training courses and publications from consultants. Helping to understand how well the concepts and practices have merged with other management accounting practices and the profession in the country is the motivation of this study. A case study methodology was adopted to gather information on ABC by interviewing consultants who had experience and knowledge of prospective adopters. Information was collected from other independent sources to study the role of the professional bodies and the information field that contributed to the supply side by, reducing the impact of the barriers that impede the process of adoption and innovation. The study focuses on the following factors; the manner and motives of the organisations undertaking the change to ABC; the role played by ABC suppliers to the information field; and the influences on the innovation decisions and the achievements in the initial phase. In these ways the study addresses the overall motivation of understanding the diffusion process for ABC in Sri Lanka.

# **Previous Research**

The literature on diffusion of ABC as a management accounting technique mainly relates to developed countries. Innes and Mitchell's (1995)<sup>5</sup> studies on the U.K.'s largest 1000 companies highlighted the use of ABC in U.K. corporations. They indicated that ABC is used across the core management accounting areas in many large corporations in the U.K. These corporations are likely to have influenced their subsidiaries, operating in Sri Lanka. Abrahamson's (1991), perspectives are used, on the diffusion of ABC in organisations in developed countries. He identified the need to consider and explain different perspectives relating to diffusion of both efficient and less efficient technologies.

Bjornenak (1997), highlighted the importance of the supply side in the diffusion process. He emphasised the importance of the relocation perspective in diffusion in influencing the supply side. The supply side of the information field comprising, visiting academics, consultants and relocation diffusion had a significant influence in the initial phase of the diffusion process of ABC in Sri Lanka, as shown below. Innovation is the "successful introduction of ideas, perceived as new, into a given social system" (Bradford and Kent, 1977). The success of an adopter in the application of an innovation may influence other prospective adopters, i.e. the innovation is contagious. Bjornenak (1997) defines diffusion as "the process whereby the innovation is spread or disseminated." His interest was to study why ideas are adopted by agents. He identified two categories of diffusion processes of accountinginnovations; relocation and expansion diffusion.

As explained by Bjornenak (1997), relocation diffusion is when people with knowledgeenter an area, without the number of adopters increasing, or the diffusion by employing individuals having knowledge of ABC, which is a demand led phenomenon. Expansion diffusion is where the total number of firms adopting the innovation increases (Bjornenak, 1997). He explains that this diffusion takes contagious and hierarchical forms. For contagious diffusion, physical proximity and communication with early adopters are important. Hierarchical diffusion "trickles down" from large organisations to smaller organisations. Barriers to accounting innovation are considered to be the different forms of impediments that impact on the interactions amongst organisations that have adopted innovation, and other prospective adopters. They can be the physical barriers such as distance, or non-physical such as cultural barriers, traditions and other such features of change resistance by people (Bjornenak, 1996). The information field is also an important factor that impels or impedes the process of innovation diffusion. Bjornenak (1996), identified the need for awareness, for demonstration and for trial, and he explained the importance of infrastructure and the media, which form the information field, in convincing prospective adopters of the benefits of the innovation. His study therefore provides a model for studying Sri Lanka, as it developes a conceptual framework for the study of innovations in accounting, identifies the link between the ABC system and the adopters; and uses the perspectives of the market and its infrastructure to explain the demand for and the supply of resources in the process of ABC diffusion. In his research he defines adopters as "companies that have implemented ABC and are currently implementing it or are planning to implement ABC". His focus is on distinguishing adopters and non-adopters and to a lesser extent on the organisations and consultants having knowledge of ABC. He concluded that the process of diffusion has had an institutional influence as identified above took a contagious form.

In considering the demand perspective, he discusses variables such as size, cost structure, the costing system, competition and product diversity. In relation to adopters, Bjornenak (1997) explained that an ABC costing system is often adopted in companies where the production is standardised and also where there is product diversity and the degree of semi-standardized manufacture of the product is high. His findings showed that manufacturers of more customised products were high amongst non-adopters. He explained this as due to, the high cost involved in the development of a new system for costing. In the context of fierce competition and high diversity of products, ABC is used to provide a competitive edge, due to biases in traditional costing systems, that may be reflected in pricing. He further examined the combination of factors that influence the adoption of ABC, such as cost structure, the degree of customised production and of exports as a percentage of turnover as a surrogate for size. As to adoption versus non-adoption, Bjornenak (1997), argued for the dominance of the supply side of the factors influencing the

process of diffusion. Other factors that made a contribution to diffusion were the innovation's origin and infrastructure.

The communication links to potential adopters were considered to be, magazines, journals, movement of staff, meetings and conferences that disseminate information on the subject. This is referred to as the information field that is made available to and focuses on prospective adopters. Consulting firms are considered to be an additional factor that contributes to the supply side of the diffusion process. In Bjornenak's study, all the firms were assisted by consultants to implement ABC. The consulting firms built up their own ABC profile in the process of adoption. The size of the company can create exposure to the information field such as contacts for knowledge, infrastructure and for channels of communication of the prospective adopter. The company size is significant for whether the company is an adopter or non-adopter, as the communication network is larger for bigger corporations. Bjornenak's (1996) ideas have been confirmed by studies on planning (Ask and Ax, 1992; Drury and Tales, 1994) and on implementation (Innes and Mitchell, 1995; Davies and Sweeting, 1993). The important role played by the channels of communication and information sources, confirms the idea of a contagious model of diffusion. Both the demand and the supply side are important in the process of diffusion.

Mitchell (1994), explains that ABC uses cost pools that are activity based to allocate overhead costs to products. The first ABC adopters were companies, where the overhead cost is high and growing, creating a cost control problem. ABC gives visibility to this problem area of cost. Compared to traditional costing systems, ABC involves an increased number of cost pools, based on activities and cost drivers. Mitchell's (1994) study identifies the most effective and persuasive arguments for ABC to support its diffusion. The propagators of ABC can "sell" it to prospective adopters on the basis of it being an uncertainty reducing tool. Mitchell (1994), further argues that organisations take time over the decision to adopt ABC. The decision may be followed by other benefits in the areas of control over costs, resource allocation, changes in product lines and budgetary control. He explains that ABC can influence the managerial decision making process and managerial motivation and bring benefit from adopting methods of more efficient resource allocation. He argues for the significance of bringing in these changes during times of recession. This scenario is relevant to Sri Lanka, where there has been a continuous period of political and economic uncertainty in the last two decades

Change in the rates of diffusion over the period of the diffusion process is explained as an S curve by economists as a result of changing levels of demand and supply (Attewell, 1992; Freeman, 1982; von Hippel, 1988). Attewell (1992), has argued

that the take off phase of the S-curve is due to a reduction in costs of the innovation, resulting in an increase in demand (Rogers, 1983). Factors relating to early adoption of ABC have been identified as firm size (Ask and Ax,1992; Bright, Davies, Downes and Sweeting, 1992; Drury and Tales, 1994; Innes and Mitchell, 1995; Innes, Mitchell and Sinclare, 2000), diversity of products (Bjornenak, 1996) and the ratio of indirect costs to total costs (Bjornenak, 1997). The "s" shape (Bjornenak T., 1997) of the curve reflects resistance and 'band wagon effects" (Bradford and Kent, 1977).

Yoshikawa (1995) pointed out that many of the techniques used in Japan have been "imported" from the western world. Most importantly, however, these techniques have been adapted to the Japanese work culture. He emphasised the importance of culture in innovation of management accounting methods.

#### **Consultants and the Interview Process**

Bechhofer and Paterson (2000), has explained the importance of understanding the dynamics of the interview process, the purpose of the interview and the process of gathering information for the study had to be borne in mind. In this study it was considered advantageous to have interviewing as one of the main methods of data collection as the people selected to be interviewed, i.e the respondents, were considered to be experts in the subject being interviewed and would have made responsible decisions in relation to the adoption of ABC in the organisations. Therefore, the respondents selected in this study were knowledgeable and discussed the factors with understanding, which were relevant and led to the decisions made. The responses from respondents were educated, diagnostic and reflected the experience in the process undertaken. The questions were simple, easily understood and directed at probing technical aspects of the different stages and aspects of the process. This resulted in there being no ambiguity in the questions, directed at the respondents. Further, this resulted in the interview process being standardised and controlled to achieve the best possible outcomes.

The managers involved in these processes may not document all the issues they confront in projects of this nature. Some factors can be sensitive social and political issues that could be very different from the technical aspects of the project. Therefore, the manager who was directly involved in the process of the change to ABC becomes a very important source of information in this study. The interviews of the managers provided more knowledge and understanding of the actual process, the problems encountered, and how these problems were resolved.

As explained before, the opportunity to interview the decision makers adds weight to the outcome of the study. The people involved in the process, who took responsibility for the decisions, shared their experiences with a sense of pride. These outcomes can have a bearing or provide a source of learning to other organisations as to how they could respond to similar changes in the future. Further, the opportunity to interview senior managers and consultants and their willingness to share their wealth of experience in the past few decades provided the much desired 'satisfaction' derived from this study.

Bechhofer and Paterson (2000), argued the difficulties involved with confidentiality, anonymity and ethical considerations in qualitative data analysis. This is due to the direct identifications of the participants involved in the process. This study is dedicated to the senior managers and consultants who committed their valuable time to share their experiences in the industry.

# Analysis

In the analysis, the responses of each of the consultants are structured into the following categories which underpin the diffusion process;

- 1. The role of outside consultants
- 2. Efficient Choice, Uncertainty and Competition
- 3. Information Field

#### Role of Outside Consultants or Agents

The use and propagation of ABC is at a very early stage in the Sri Lankan context. However, some consultants have clients who are multinational corporations that have adopted ABC methodology for capturing and processing costs. Thus, these consultants have knowledge and the exposure to ABC methodology. In one of the interviews, it was mentioned that one assignment they received from a multinational corporation was to study and verify whether the data capturing and processing in the organisation was carried out in accordance with the principles of ABC. The consultants from the firms have revealed that they had not had an active involvement in the promotion of ABC. The consultants to two firms acknowledged that adoption of costing systems based on ABC in two of their management assignments was at the request of the client. One assignment was a Public Service Board, which had overseas funding and the other was a private company facing intense competition from imports into the country. These were the only two ABC assignments in which they had an active involvement in the past two decades.

The consultants have been identified as A, B and C to maintain their anonymity and confidentiality.

Consultant A identified the importance of price in a market-based economy, and how a sound knowledge of cost can benefit the organisation facing a competitive environment. He identified a situation where there had been a demand for ABC. He showed reasonable competence and knowledge of the use of resources to support the supply side, although his preference was for the use of other management accounting tools. He further explained that ABC had evolved via the professional bodies of accountants.

Consultant B identified big multinationals and a donor-funded organisation as users of ABC in the country. Further, he identified the importance of the information system and the size of the organisation in the application of ABC. The consultants had a demand for advice on ABC-related applications from the private sector as well as the public sector, in health care and telecommunication industries and in financial services such as banking and finance. ABC in Sri Lanka evolved from multinational corporations, and relocation diffusion played a significant role in this process.

Consultant C was involved in a project to identify cost drivers that related to specific costs. He identified the involvement of multinationals in driving competition in the region and squeezing margins, which brought about a need to be aware of costs. The need to analyse costs and benefits in making the decision for ABC adoption, had to be given due consideration. He discussed an instance where a firm had used an overseas consultant in a project due to the lack of consultants with ABC experience. He discussed the importance and the use of the information field, from role models. They classify customers according to profitability. He cited the growth of an organisation from one plant to twenty, in a span of twenty years. It operates in a competitive multinational environment and used ABC applications in some operations.

#### Efficient Choice, Uncertainty and Competition

Consultant A identified organisations in emerging economies as prospective adopters of ABC, due to the competition they face during their economic transition. He identified the need to be aware of costs, and the drivers of costs, to be able to have control over them. He discussed companies operating in international markets as role models of companies having a competitive advantage in such environments. He argued for the importance of identifying the principal and subordinate drivers in allocating costs. The consultant was involved in adopting ABC in one organisation where the decision was made on an efficient choice basis, as a result of competition and uncertainty in the environment.

Consultant B identified the advantages ABC brings through identification of cost drivers and capture of costs. Therefore, ABC is considered a useful cost

management tool. The consultant further explained the importance of the size and volume of transactions in the adoption of ABC. He further identified ABC as complementing the Balanced Score Card and explained the contribution from software manufacturers to ABC as an important part of its propagation.

Consultant C also identified the adoption of ABC as an efficient choice. He further stated the need for adoption of ABC in an ailing industry. This raised the possibility that uncertainty and competition in the economic environment are driving organisations to adopt ABC. Further, he argued that multinationals have influenced the adoption of ABC, ostensibly, to have more 'accurate' costing and transfer pricing in place.

#### Highlights of Information Field

This study identified the incidence of diffusion as relating to the following factors:

- a. Diffusion through employee transfers or migration, identified as "relocation diffusion".
- b. Influence of multinational corporations on subsidiaries in the adoption of accounting systems.
- c. Trend setters, such as visiting academics and consultants, conducting workshops and seminars on new accounting methods.
- d. Literature and published material on management accounting tools.

Bjornenak's (1997) studies revealed the importance of the role played by "relocation diffusion", where people with knowledge enter areas or organisations where their skills and knowledge are put to effective use. This is a demand-led phenomenon, where organisations employ individuals with knowledge of ABC. Further, he identified the significance of the information field on the supply side of the diffusion process. This consists of literature, the magazines and other published material, conferences, seminars and the active role played by academics, consultants and business schools.

As explained by Consultant A, the more active information field available to the organisations in Sri Lanka appears to be through relocation diffusion, and seminars, conferences, and workshops carried out mainly by academics and some consultants for professional accountancy institutes. These academics and consultants are "trendsetters" in promoting new accounting methods in organisations. The managers in the organisations have had exposure to books, publications, and with the advances in information technology, literature, and articles from the internet made a significant contribution to the information field. Senior managers of consulting firms conducted seminars and workshops in Financial Advisory Services for the benefit of their staff. In the Sri Lankan context, visiting academics, and consultants played a prominent role, in the initial phases of the process of ABC

diffusion. This had a significant influence on the information field, directly impacting on prospective adopters. In studies in developed countries, consultants have played an integral and a more active role on the supply side of the actual adoption of the ABC processes in organisations. The evidence gathered reveals that, in Sri Lanka in the current initial phase, the involvement of the consultants in the actual decision making, and in the adoption of ABC processes in organisations has been minimal. The main impetus of the "knowledge stimulus" appears to have come from relocation diffusion that has influenced the diffusion of ABC in organisations by stimulating a need for ABC.

Consultant B identified the information field to be mainly from the professional journals, publications, conferences, seminars and workshops conducted by the accounting professional bodies. The authority of the accounting institutes has been used to propagate the ABC diffusion. The consultant has clients adopting ABC in the private sector including multinational corporations and the public



Figure 1: Summary of the Sri Lankan ABC Innovation Process

sector. Public sector organisations, funded by international funding organisations, have adopted ABC due to the requirements imposed on them by the funding institutions. This may be due to efficient choice in performance measurement influencing adoption and as a method of standardisation for control purposes.

The first local organisation to adopt ABC in the manufacturing sector is one of the biggest manufacturing organisations in the country. This provided an important example for others to follow. It appears that relocation diffusion has played an important role in the adoption process in this organisation. Here again, the policies on economic liberalisation have created uncertainties, that may have influenced the decision to adopt ABC. Further, it appears that size has been an important consideration in the adoption of ABC<sup>7</sup>.

Consultant C had some exposure to ABC through professional education, workshops, seminars, and publications. His firm also uses their informational databases and professional network for technical information to advise their clients. He identified the costs involved and size as important considerations in the adoption of ABC in an organisation. He argued for the importance of carrying out a cost benefit analysis to assess the needs of an organisation, before the adoption of ABC. i.e. that the decision should be one of efficient choice.

# **Factors Affecting ABC Adoption**

#### Size

In the USA, ABC principles developed in large capital-intensive companies. The existence of very high fixed overheads made the identification of cost drivers an important aspect of transparency of the cost structure. In comparison, Sri Lankan companies are relatively small in size. This may be an important factor in deciding on the design of the ABC system to be used. The adoption of principles of ABC, and its combination with other management accounting tools are expected to give a more competitive advantage to the costing and pricing structures. Size and a resulting cost structure with relatively high indirect costs may also play a significant role in the efficiencies that result from the implementation of ABC (Bjornenak, 1997). The small size of Sri Lankan business entities, compared to entities in the USA where ABC was initially adopted, may not be conducive to the propagation of ABC.

#### Cost – Benefit of Implementation

A prominent consultant explained that the initial outlay of investment in the adoption of ABC is prohibitive to many organisations i.e the cost on the investment in technology, human resources, and time taken to train and make relevant changes to successfully implement the processes. The pay back period on the investment outlay becomes an important factor for the management of companies considering implementation of ABC. Therefore, cost – benefit analysis of the adoption of ABC plays a significant role in the process of decision-making. However, while many of the outlay costs may be quantified readily, the benefits are much more subjective and difficult to quantify.

#### Uncertainty

In Sri Lanka, uncertainty has been a key factor in socio-political and economic activity in the country in the past two decades. This has had a significant influence on business confidence and has led to low levels of investment in the economy and acted adversely on the growth of the organisations. Even for a country with socio-political and economic stability, uncertainty can arise from competition, which may lead to organisations adopting a fashion perspective (Abrahamson, 1991). The process of change can meet with resistance from within the organisations, which can create a different scenario for start-up entities or new organisations. Innes and Mitchell (1995), highlight the significance of uncertainty arising from competition that could stimulate adoption of ABC.

#### Competition

Competition between indigenous and multinational companies has been a dominant factor influencing economic activity in the country. This has led to existing organisations having to be cost effective in their operations, in an intensely competitive international marketing environment. Pricing and cost management have therefore become prominent issues for corporate management and this has created an environment in which the latent demand for ABC is strong.

#### Efficient Choice Perspective

In considering the decision to adopt ABC, the outside influence dimension<sup>8</sup> and an imitation focus dimension (Abrahamson, 1991, Appendix A) need to be considered. It appears that at least in the initial stages, the decision to implement ABC has been from an efficient choice perspective within the organisations. An imitation process seems not to have influenced the implementation process.

This situation might change when information from other subsidiaries in a group is made available (Abrahamson, 1991). In Sri Lanka, the initial phase has been triggered by the stimuli received from visiting academics, consultants conducting seminars and workshops at the invitation of professional accounting bodies and diffusion from relocation of professionals with knowledge, skill, and experience. The decision for adoption of ABC in the initial phase has been an 'efficient choice' from within the organisations. This was echoed by all consultants interviewed, although in the multinational corporations, the implementation has been influenced by their head offices.

#### Consultants and the Information Field

The main source of the information field for ABC has been seminars and workshops conducted by visiting academics and consultants. Literature, other publications, books and the internet have been valuable resources for prospective adopters. The interviewees, the adopters, the prospective adopters and the consultants have all highlighted the significant roles played by visiting academics and the consultants. It is evident that they have triggered the need for the adoption of ABC in the business community. This has been effectively brought about, by stimulating the prospective adopters by informing them of the possible advantages ABC could bring to the industry in a competitive economic environment. For instance, a financial service organisation is using the services of an overseas consultant in the process of implementation of ABC. This organisation has gone through a process of restructuring in recent years. In another manufacturing organisation an overseas consultant was involved in the implementation of ABC. However, with a change of CEO the commitment to the project dwindled and it has been abandoned. It was revealed that the project was not geared to provide timely management information in the interim period and this resulted in the abandonment of the project.

This paper sees consultants as having two distinct roles. These are firstly conducting seminars and workshops propagating and bringing awareness of the use and application of management accounting tools, and secondly specialising and actively engaging in the implementation process of such management accounting tools. The evidence from Sri Lanka does not reveal an active demand phase from industry for the consultants to help in the process of application and adoption of ABC. An active supply phase of seminars and workshops by consultants that contribute to the information field has taken place. However, ABC has now had an extended initial phase exceeding a period of ten years. A nother important aspect according to the interview evidence has been the diffusion that has taken place by relocation of skilled personnel. Multinational corporations operating in the country have adopted ABC for some time. They are an active testing ground as propagators of ABC. It was revealed that in the two organisations that implemented ABC, the senior managers acquired skills in previous organisations that were major multinationals adopting ABC methodology and were transferors of technical skills, experience, and knowledge by relocation from the previous organisation. In these two organisations the assessment and the decision for adoption of ABC was led by demand and was clearly an "Efficient Choice", so the need for innovation came from within the organisation. It appears that the successful transfer has been from relocation diffusion in Sri Lanka. This is from professionals with knowledge and experience of ABC, which is a scarce resource in the country.

The main sources of outside influence<sup>8</sup> on the active information field have been visiting academics, consultants conducting workshops, seminars and relocation diffusion originating from multinational corporations. This knowledge stimulus has acted on the organisations operating in an uncertain economic environment, stimulating them to adopt ABC as an efficient choice and to be innovative, to benefit the organisation and its customers. This is a very different initial phase to that portrayed in Abrahamson's matrix for organisations in a developed economy, due to the time lag in the evaluation process. Later phases such as the take-off phase may provide a different mix of phenomena from organisations in the developed world.

# Conclusions

Given the exploratory nature of this study and the use of a small selected sample of interviewees, the results should not be considered as providing a basis for generalisation but rather as a means of generating some relevant insights into ABC diffusion for Sri Lanka. They provide a basis for future research rather than being an end in themselves. With an extended initial phase in the ABC diffusion process, the evidence gathered for this study indicates that the role played by the consultants has had limited impact on prospective adopters. The consultants have a working knowledge of ABC as some of their multinational clients do use ABC. Relocation diffusion from multinational corporations has contributed to the adoption of ABC in a few organisations in Sri Lanka.

An important aspect that needs to be considered is the socio-political and economic uncertainty that the country has had to cope with in the past two decades. This, together with the increase in competition in the export trade from the South and Southeast Asian countries, has created additional pressure for managers of organisations. This continuing pressure has brought more uncertainty for industrial groups resulting in the need to bridge performance gaps. The "knowledge stimulus" that Sri Lanka has received from the consultants, has been a mix of perspectives developed over the last two decades in developed economies. The senior managers of the organisations having had their professional education, and experience in the industry in multinational corporations, have had exposure to evidence from developed economies, to make informed decisions in the initial phase of the decision making process, of implementation of ABC.

The information field for Sri Lankan organisations for decision making appears to be better than the information made available to managers of the developed

economies in the initial phases of ABC adoption cycles due to the time lag and the technological advances and efficiencies developed in the transfer of information. They have access to a wider information field and more access to information from adopters and non-adopters, when compared with the managers in developed nations, during the initial phases of the ABC adoption cycle in the past. In Sri Lanka, the application of ABC has been practised in subsidiaries of multinational corporations operating in the country. This has been a good "testing ground" for the application of ABC methodology. The managers interviewed discussed the need for assessment of capital investment and the return on such an investment that is required to implement ABC. This is important, because of the size of organisations in Sri Lanka.

It is considered necessary to adapt the ABC principles to suit the processes of smaller organisations (Otley and Berry, 1994), compared to the large organisations with high indirect costs for which ABC was originally designed in the USA (Bjornenak, 1997). Being small may mean less organisational socio-political and information system issues to resolve compared to the big corporations for which ABC was originally designed. However, it appears that a developing country like Sri Lanka has not shown an 'appetite' for ABC innovation in the past two decades. This may be construed to be a result of the different mix of the information field focusing on the decision makers in Sri Lanka. Given the nature of a small developing nation, with uncertainty hanging over the economy, efficient choice and innovation have emerged as dominant factors in the initial phase. This is important to the early phase if it is expected to develop to the next, the "take-off" phase.

From the evidence of the initial phase, the take-off phase may be subject to forces different from the forces experienced in organisations in developed countries. It appears that efficient choice must be given due consideration in the process of adoption and that imitation may takeover within groups impelling the process of diffusion to the next phase. In the subject organisations, ABC has been used to help bridge the performance gap created by intense competition and uncertainty.

External forces act as knowledge stimuli in an environment where uncertainty has been a key factor, where organisations are facing competition, and where the size of organisations is small compared to organisations that have adopted ABC in developed countries. They have exposure to a wider information field resulting from an imitation focus dimension and an outside influence dimension operating in the later phases of the adoption of ABC, consisting of the four perspectives: efficient choice, forced selection, fad and fashion from developed countries. The cumulative impact of these factors on organisations in a developing economy may have a significant influence on the decision makers.

The analysis of the evidence portrays a significant set of factors influencing the initial phase of ABC development in Sri Lanka. The key criteria seem to be size, cost-benefit, uncertainty, competition, efficient choice, information field and consultants.

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#### Notes

- Innovation is the introduction of a new idea into a new social system. The introduction of the idea from an old system into a new system does not preclude it from being an innovation in the new system (Bjornenak, 1997).
- <sup>2</sup> Barriers to accounting innovation can take different forms such as physical barriers and other forms that impede the innovation and the adoption process.
- <sup>3</sup> The documentary sources form an important part of the information field (IF), in the supply side influencing the diffusion process.
- <sup>4</sup> Bjornenak and Mitchell (2002), have discussed how ABC has generated attention, its development and change over a period of time.
- <sup>5</sup> The survey conducted by Innes and Mitchell (2005), have highlighted the areas of ABC application and the potential for further research in the paper.
- <sup>6</sup> Relocation diffusion appears to have played an important role in ABC diffusion in Sri Lanka.
- <sup>7</sup> In the given organisation the factors size and uncertainty in the economic environment created a demand led situation for relocation diffusion.
- <sup>8</sup> Outside influence relates to the stimulus propagating the adoption of ABC from outside the organisation (Abrahamson, 1991; Appendix A).

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AppendixA

Theoretical Perspectives Explaining the Diffusion and Rejection of Administrative Technologies Extension to Abrahamson (1991)

Imitation Focus Dimension		Country (Eg Sri Lanka)	Outside influence dimension
Imitation - Focus Dimension	Imitation Processess Impel the diffusion or rejection	Fad Perspective	Fashion Perspective
Imitation -	Imitation Processes Do not impel the diffusion or rejection	Efficient Choice Perspective	Forced Selection Perspective
		Organisation Within Group determIne the Diffusion and Rejection Within ThIs Group	Organization, Outside Group deternine the Diffusion and Rejection Within This Group
		Outside - Influence Dimension	j, l

Diffusion, Adoption and Non-adoption of ABC in a Developing Country



Appendix B