The Effectiveness of Services Outsourcing in Sri Lankan State Universities

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Author's contribution

The sole author designed, analysed, interpreted and prepared the manuscript.

Original Research Article	

ABSTRACT

Universities in Sri Lanka are in the process of rapid development in tertiary education. In this context, service outsourcing becomes a crucial element of enhancing university functionalities in terms of cleaning, security and cafeteria in particular. Meanwhile, there is considerable debate on the effectiveness of outsourcing services. This study attempts to resolve this controversy by examining the effectiveness of Outsourcing services in Sri Lankan state Universities. Meanwhile, a limited number of studies has been conducted on Outsourcing in higher educational institutes and no other research has yet assessed the effectiveness of outsourcing services in Sri Lankan Universities. Hence the main objective of this study is to assess the effectiveness of outsourcing services in Sri Lankan universities. Primary data has been collected from the administrative employees working in Universities. Two stage cluster sampling method was used to obtain 132 responses from administrative staff in University of Peradeniya, Sabaragamuwa University of Sri Lanka and Eastern University, Sri Lanka. Descriptive analysis and One-way ANOVA were carried on the collected data. The result reveals that there are differences in the effectiveness of cafeteria and security services among the three universities. The effectiveness of outsourced cleaning service is at high level in all the three universities. The effectiveness of outsourced cafeteria service is at a high level in University of Peradeniya, moderate level in Sabaragamuwa University of Sri Lanka and low level in Eastern University, Sri Lanka. Similarly, the effectiveness of outsourced security service is at high level in both University of Peradeniya and Sabaragamuwa University of

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Sri Lanka while itis at a moderate level at Eastern University, Sri Lanka. Hence Implications of this research and the recommendation of this study suggested that the Scholars, institutional administrators and policymakers need to understand the outsourcing phenomenon and whether it is effective and beneficial to the organisation.

1. INTRODUCTION

1.1 Background

The last decade has witnessed an increasing trend onthe privatisation of many traditionally public functions [1]. For the most part, privatisation means that governments and other public organisations outsource, or in some cases relinquish, conventional operations to private industry suppliers.

Outsourcing is a form of privatisation in which an entity contracts with an external organisation to provide a service. Outsourcing of services has become popular to public organisation since public reform took place with aim of improving operational efficiency of enterprises and reduce the burden of loss-making enterprises on the government budget. Lund [2] terms from US-Canadian perspective that outsourcing is a tool for doing more than before with less facilities to enhance university services. Lund [2] indicates that in early 1980s, Commonwealth countries faced problems with shrinking of financial resources, expansion of enrolments and improving their service quality. Wasantha & Laksiri [3] indicate that outsourcing is mostly related to unskilled works in institutions and extensively those works are not considered as core activities in the institution, but they cannot be negligible too.

Herath and Ahsan [4] also strongly indicate that the outsourcing is useful to access experts, enjoy the benefit of economies of scale, maintain cost effectiveness, avoid risk involved in the respective services (like insurance), and make seasonal staffing. Hence, this study attempts to evaluate the extent to which the outsourcing of services has impact on producing effective outcomes in Sri Lanka university functions, from a university administrative executives' perception point of view.

1.2 Problem Statement

Over the past decade, the private sector took the lead in restructuring, downsizing, and outsourcing of the functions, which have performed previously in-house. According to Stamford [5], many organisations have outsourced information processing, various personnel activities, and production of parts that can be performed better outside the company. The goals are to reduce cost, improve productivity, manage stress, enhance competitive advantage and respond to the fast-changing global environment that affects all organisations [3].

Almost all the universities in Sri Lanka are funded by the Government and thus highly reliant on the allocations through annual budget of the Republic. Therefore, it is of importance that stakeholders are concerned whether the money allocated to the Universities are being utilised for creating maximum impact on higher education of youths in the country. Universities in Sri Lanka are however being criticised often as offering services not up to the level required to make their output nationally relevant and internationally competitive [6].

Samaratunge and Bennington [6] stress the inefficiency of Sri Lanka government sector by citing the statement of a minister. This indirectly implies the inefficient use of resources. As the government sector (including universities) seems inefficient, not producing optimum results of using resources, the University Grants Commission (UGC) has permitted the universities to have outsourcing for the above-mentioned services. Some of the universities, like UwaWellassa University and Rajarata University of Sri Lanka, have made success in handling the funds to get optimum level of services from outsources [7]. However, some other universities still function with traditional methods of using funds for these services. In this context, it is questionable the extent to which the outsourcing can be benefitting the universities to utilise their funds to get such optimum services. It is therefore important to have a detail study on the effectiveness of the outsourcing in Sri Lankan universities.

Outsourcing or privatising services in higher education is a common practice, but what do we really know about it? Is outsourcing effective? It is imperative that these questions be addressed since outsourcing is becoming a norm in higher education institutions. Scholars, institutional administrators and policymakers need to understand the outsourcing phenomenon and whether it is beneficial. However, there has been little research documenting the cost-effectiveness or difference in the quality of service associated with outsourcing [8].

Despite recent research on outsourcing, there have been a very limited amount of data or statistics about outsourcing in higher education and the need for such data have been recognised as more and more colleges and universities turn to outsourcing [9]. However, the effectiveness of outsourcing in achieving the desired objectives is not reviewed at the institutional level. The available research literature in Sri Lanka regarding this issue is also limited [3]. Therefore, the present study is focused to explore the effectiveness of outsourcing services in Sri Lankan Universities and to examine the effectiveness of outsourcing services.

This study tries to answer the research question:

> *What is the level of effectiveness of outsourcing services in Sri Lankan Universities?*

The following research objectives are raised for this study based on the research problem identified and research question developed above,

1. To find out the level of effectiveness of outsourcing services with regard to cleaning service in Sri Lankan Universities.
2. To find out the level of effectiveness of outsourcing services with regard to cafeteria service in Sri Lankan Universities.
3. To find out the level of effectiveness of outsourcing services with regard to security service in Sri Lankan Universities.
4. To assess whether there are any differences in the effectiveness of outsourced cleaning service among the universities in Sri Lanka.
5. To assess whether there are any differences in the effectiveness of outsourced cafeteria service among the universities in Sri Lanka.
6. To assess whether there are any differences in the effectiveness of outsourced security service among the universities in Sri Lanka.

1.3 Scope of the Study

According to the University Grant Commission web report [10], the Sri Lankan Universities, campuses and institutes are stated in Table 1.

Table 1. Sri Lankan state Universities, campuses and institutes

Description based on UGC	Numbers
Universities	15
Campuses	03
Institutes	18
Total	**36**

Source (UGC website, [10])

According to the UGC [10], all 36 state owned higher education entities are in Sri Lanka. However, this research is limited to the 15 state Universities in Sri Lanka, they were established under the authority of the University Grants Commission UGC, [10].

Meanwhile these 15 universities were tiered into 3 groups for the purpose of quality and innovation grant (QIG) for undergraduate study programs at Sri Lankan universities. Hence Tier 01 consists of the universities in the Northern & Eastern Provinces, Tier 02 includes newly established universities (established after 01.01.1995) and Tier 03 consists of old universities, they were established before 01.01.1995 [11]. Hence this study has scope on these 03 different tiers.

2. LITERATURE REVIEW

2.1 Outsourcing

Outsourcing is one of the fastest spreading forms of international trade in a globalisation era. It is characterised by exponential growth in the rate of absorbing and mastering new technology and considered a catalyst to ignite worldwide economic welfare [7]. Both small and large organisations have used this method to pursue growth in the hyper

Table 2. Tiers of Sri Lankan Universities

Tiers	Description	Name of the Universities
Tier 1	Universities in the Northern & Eastern Provinces	• University of Jaffna • Eastern University • South Eastern University
Tier 2	Newly Established Universities (established after 01.01.1995)	• Rajarata University • Wayamba University, • Sabaragamuwa University • UvaWellassa University • University of the Visual & Performing Arts
Tier 3	Established Universities (established before 01.01.1995)	• University of Peradeniya • University of Colombo • University of Sri Jayewardenepura • University of Kelaniya • University of Moratuwa • University of Ruhuna • Open University

Source; HETC, [11]

competitive business arena. Despite the benefit that organisations have derived from outsourcing, there are also some impacts risks that are associated with it. Currently, small businesses dominate the use of outsourcing, compared to large businesses.

Outsourcing can be defined as turning over all or part of an organisational activity to an outside vendor [12]. The term outsourcing covers many areas, manufacturing as well as services. It can involve the transfer of some activities to an outside party while some remain inhouse. Outsourcing can also involve the transfer of both people and physical assets to the supplier. When the decision to outsource has been made a number of important issues have to be considered including supplier selection, contract negotiation and transitioning of assets to suppliers [13].

According to Lynn and Lauts [14], successful outsourcing requires a strong understanding of the organisation's capabilities and future direction. Decisions regarding outsourcing significant functions are among the most strategic that can be made by an organisation; because they address the basic organisational choice of the functions for which internal expertise is developed and nurtured and those for which such expertise is purchased. These are basic decisions regarding organisational design.

Outsourcing has failed in some organisations because they rushed to outsource some activities as their competition is doing without

carefully examining each department and why it is not performing. Baitheiemy [12] identified sevenreasons as to why outsourcing had failed; the first reason was managers outsourcing activities that should not be outsourced. These activities include core activities that give an organisation competitive advantage; selecting the wrong supplier also led to the failure of outsourcing. Writing a poor contract is second reason identified for the failure of outsourcing. A contract is said to be poor if it doesn't contain objective performance measures, clear terms and conditions that dictate the relationship between the two parties, managers not taking time to negotiate the contract and it should be precise, it should clearly state the amount to be paid. Another reason is Outsourcing may fail due to overlooking personnel issues. Before an outsourcing decision is made, management should inform the other employees, an explanation as to what exactly might happen. Fourth reason is Outsourcing may fail due to managers losing control over the outsourced activity. Managers should be in constant communication with the supplier at all times and be actively involved in the entire process.

Overlooking hidden costs has also been identified as another failure of outsourcing. Sixth reason is Costs such as costs for drafting a contract and searching for a supplier can sometimes be higher than costs of the entire process of outsourcing but they are however, important so as to benefit the organisation in the long run. The final reason of outsourcing is failing to plan an exit strategy. Managers should have

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an exit strategy in place that contains what ending a relationship with a vendor would entail.

2.2 Effectiveness of Outsourcing

Most of the organisations are working with specialist providers in one form or another and research suggests the trend is on the increase at the current world. In order to make the most of outsourced contracts. It is important to consider both their efficiency and effectiveness. According to Gupta et al. [9] "outsourcing" of various higher education functions and services. Outsourcing is a form of privatisation that generally refers to a higher education institution's decision to contract with an external organisation to provide a traditional campus function or service. The contractor either takes over the task of compensating and managing the employees of the university, paying the group according to its standards, or replaces the university employees with its own staff. Goldstein et al. [15] and Gilmer [16] have carried out studies on outsourcing in higher education and found that outsourcing has traditionally been used to operate campus bookstores and dining services. Further, they observe that many institutions have opened to diversity this practice to facilities operation, computer services, security, child care, residence halls, teaching hospitals, remedial classes, and even entire institutional management.

Effective outsourcing means clear definition of terms and conditions, understanding of obligation, and agreement on the specific business and performance objectives as the starting point. Universities and business world have comparable issues and concerns related to outsourcing. Thus, it has also gained marvelous drive in the university system. Universities attempt to reduce costs and improve the quality of the service. They have demonstrated increased interest in outsourcing over the last decade [17]. Food services cleaning, security, alumni operations, maintenance, health services, technology and many other supplementary services are being outsourced [18].

2.3 Outsourcing in Universities

Over the past decade, outsourcing has become the most prominent strategic change in the private sector organisations in Sri Lanka, even though this concept has thirty-six years history [18]. As observed earlier, outsourcing in higher educational institutions is a relatively new practice in Srilanka. It is therefore imperative to adopt a theory that seeks to explain how these institutions make the decision to go the outsourcing way.

Moreover, James [19] contends that the phenomenon of outsourcing can be described in Kenya as in its "infancy". Business Process Outsourcing, for instance, in the banking sector Barako and Gatere, [20] can be said to have taken root. Public universitiesare still experimenting with the 'fancy' idea of outsourcing. Because it has often been emphasised by higher education policy makers and analysts that universities should concentrate on their "core business", namely teaching and research.

According to Kanthi and Fazeela [21], an important consideration of outsourcing in higher education is to recognise services and functions that can be carried out independently from the core activities of the university. Core activities are what make the college/university unique or are most important to achieve its missions and goals. The distinction between core activities and support services should clearly be recognised, as some universities are outsourcing certain education programs too. Also, many consider student residence hall as a core service but George Mason University decided to outsource the management of a student residence hall [17]. Some universities have outsourced their library services and information technology instruction.

In the past, higher education institutions have outsourced the operation of bookstores, dining services and grounds and maintenance services to private vendors. At present, however, many other support services such as mail services, health services, residence halls, computing and information technology, teaching hospitals, ventilating and air conditioning maintenance, building and grounds management, childcare, fundraising, laundry services, printing, security, and car parking are also being contracted out [21]. It is important to note that the services outsourced by many institutions are support services of higher education and they do not relate directly to providing instruction —the "core competency" of the institution. The recent financial pressures have led many colleges and universities to outsource additional services and functions such as facility management, administrative services such as payroll, transportation, healthcare, and many more [22].

2.4 Dimensions of Effective Outsourcing

2.4.1 Cost effectiveness of outsourcing

Costs to be considered include both measurable monetary costs, as well as intangible costs. Not all costs will be capable of exact quantification, but it is imperative to obtain the best estimate possible. Categories of costs that should be included in the decision are direct and indirect, tangible and intangible, and discretionary and nondiscretionary. While the direct costs may be relatively simple to identify, it is the other categories of costs that can be difficult to determine. These costs include such items as administrative expenses, coordination costs with internal and external parties, training expenses, and information resources. The effect of outsourcing may also have cost effects on other parts of the organisation. These costs should be considered as well [23].

According to Savarese [24], the cost is important in today's environment, but not exclusively. Some suggested that they would not consider outsourcing if cost savings were not a part of it. Most qualified that statement by insisting that service improvement also is expected, but they were anxious about how a provider can pay the people less and get them to perform better. Many indicated that service improvement can stand alone as a reason for outsourcing, but cost would generally need to be at least equal to current cost. For some, cost savings make it much easier to sell an outsourcing program internally. Others talked about "soft savings" such as the relief for management that outsource assumes.

Values/savings from in-house to outsource this is also achieved through the provider being a specialist in the area of financial management. For example, a specialist facility management company is coming to the end of a large contract with a client and has underutilised resources (people). It also has two other very large clients that it services. It is, therefore, able to supply this underutilised resource at a very competitive price to any potential client organisation [25].

According to Chan [26], cost of outsourcing incurred include the following:

- Contract management costs to the organisation
- Effectiveness costs from lack of understanding of project objectives
- Higher project costs as organisations may experience greater overall project costs in order to access necessary skills and expertise that are unavailable internally
- Higher costs from inadequately defined requirements

Also, Nicklin [27] asserts that the effect of outsourcing on cost efficiency is important to consider.

Cost effective meant by Muweesi [28] that senior management often find outside firms to be more cost-effective. While middle managers often claim, they can hire a person to do it cheaper, upper management looks at things differently. Making or buying intermediate inputs essentially outsourcing addresses the issue as to whether a firm should make or buy intermediate inputs; an issue that has a long tradition in economics, dating back to the seminal work by Coase [29] on the boundaries of a firm. The cost of outsourcing is not only determined by the price of the bought-in components, but also by transaction costs due to transport and incomplete contracting costs, and the possible implications of asset specificity for supplier and/or customer.

Cost efficiency remains the primary explanation for the development of outsourcing. Firms should consider outsourcing when it is believed that certain support functions can be completed faster, cheaper, or better by an outside organisation [30]. Firms evaluate outsourcing to determine if current operation costs can be reduced and if saved resources can be reinvested in processes that are more competitive. Some researchers contend that an important source of cost reductions is the outsourcing firm's access to economies of scale and the unique expertise that a large outsourcing vendor can deliver, all of which in turn will serve to boost the organisational performance Bin, [31].

2.4.2 Organisational system and Operational efficiency

Most companies outsource benefits administration to gain service efficiencies, vendor commitments and innovations not easily found in-house. But a poorly planned or executed outsourcing strategy can result in more problems than it solves. Administration functions can be partially or fully outsourced. Partial outsourcing is the most common engagement, with the client co-managing activities with the vendor [27]. Few companies completely outsource admin and management services, which transfers full responsibility to the vendor. Top functions that

are commonly outsourced include background checks, employee assistance, employee administration, flexible spending account admin, healthcare benefits admin, temporary staffing, pension, retirement and benefits admin, employee relocation, executive development and coaching, risk and performance management, training and development, and recruitment and staffing of executive and non-executive personnel.

Contract administration is concerned with the mechanics of the relationship between the customer and the service provider, the implementation of procedures defining the interface between them, and the smooth operation of routine administrative and clerical functions. The importance of contract administration to the success of the contract, and to the relationship between customer and provider, should not be underestimated.

According to Zua [32], outsourcing objective is that companies get chances of improving their operational flexibility. Usually, when a company controls all its business functions, then chances are that it may not respond to certain business conditions e.g infrastructural changes. However when a business has outsourced its functions, then it can always request reductions or increases in these business functions. The overall result of this is that companies gain operational flexibility and therefore enhance their organisational effectiveness.

2.4.3 Strategic and Organisational effectiveness

Strategy relates to an organisation's mission, philosophy, goals, and objectives. It determines the type of business, hierarchical structure, and its commitment to customers, employees, and shareholders [33]. Understanding the organisation's strategic vision and plan, and the organisation's objectives, will provide considerable insight as to whether the organisation is receptive to outsourcing. An issue to consider include how critical the function or activity is to the corporate strategy and the level of organisation support that will be received from the vendor. Another issue to be reviewed is the internal systems of the organisation and whether outsourcing will hinder the current internal systems information flow.

However, organisations have always been seeking for ways to achieve a competitive edge over their potential competitors, however, the contemporary highly competitive environment in which today's businesses operate acts as a strong stimulus for organisations to outsource. The need to respond to market changes on a daily basis and the difficulty of predicting the direction of such changes mean that organisations must focus on their core competencies and capabilities [13]. One avenue that organisations have pursued to improve their competitive position in this new business environment has been to increase the role of outsourcing in their operations, which has been found to provide a competitive advantage to these organisations [34,35].

In addition, the economics of globalisation and liberalisation facilitate the process of searching for opportunities on the open global market to outsource some of the organisation's activities instead of performing them internally. Because of the diverse nature of business processes an organisation has to manage today, it is nearly impossible for an organisation to manage all of its processes by solely depending on its own expertise. Even if it is feasible, the organisation may lose its focus and efficiency. Outsourcing some or all of noncore business processes can enable an organisation to focus on core competencies, rather than services that fall outside of expertise. It will not only enhance function effectiveness and flexibility by accessing a support network with highly qualified and specialised workforce, but also help organisations control their costs and business risk by transforming high fixed costs to predictable expenditures.

2.4.4 Human resources and organisational culture

The improvement that high organisational performance provides is becoming more critical in today's increasing conditions of competition. The effects of human resource functions and organisational culture to perform a significant organisational efficiency attracts both theoreticians' and practitioners' interest much more. When outsourcing is considered as one of the methods that organisationsutilise for strengthening their core competencies to allocate their resources efficiently, the question of the degree to which human resource functions could be outsourced brings to mind the effect of organisational culture enabling outsourcing on organisational performance. Besides performing the administrative services such as catering, cleaning, employee transportation, and security as outsourcing, operations of some human

resource practices like training and payroll via outsourcing contribute the desired performance positively by means of only true strategy and organisational culture shaping the strategy. The performance of human resource management and the viewpoints of employees about outsourcing have critical importance to improve a convenient strategy.

Human resources refer to the employees of the organisation and can be at any level or in any department or function of the organisation. It is the people. The reaction of employees to an outsourcing decision will determine the smoothness of the transition. A decision to outsource can have monumental effects on employee morale, especially if it results in a layoff. The only way these problems may be minimised is through effective communication from top management [36]. Another area of the human resource area to be considered is training and retraining costs involved if a decision is made to outsource. If displaced employees can be relocated elsewhere in theorganisation, their current level of knowledge, skills, and experience must be evaluated, as well as the retraining cost. Other related costs that should be considered include classified advertising, overhead, administrative costs of hiring and terminating, taxes, and benefits [37]. In addition, whether or not the organisation is operating in a unionised industry or environment will have to be considered. The impact of the decision on the unionised group and their possible reaction(s) should be evaluated.

An outsourcing strategy will lead to changes in policies, cultural values. In fact, outsourcing can lead to the disintegration of an organisation's culture. The redrawing of the boundaries of the organisation will impact upon the prevailing values and norms of employees. The culture of the organisation must be considered in the formulation and implementation of the outsourcing strategies [13]. The existing organisational culture is disturbed when an external outsourcing agent enters the organisation [38]. Thus it will affect collaboration between the organisation and the agent when the respective cultures are not compatible to achieving their objectives. An outsourcing relationship can be conceptualised as an extension of the client company's (the dominant group) culture. Culture of transparency is one of the foundations for outsourcing partnership. Establishing the culture of transparency and trust are significant elements in the communication framework.

2.4.5 Quality of outsourcing

Quality: The term quality refers to totality or characteristics of goods and materials that satisfy the intended need at the lowest cost. It is fitness, merit and excellence. Providing high-quality service is a major concern for nearly any business. Quality of service can be a major factor when customers decide which business to use to solve their needs. Customers have certain expectations about the level of satisfaction they'll get from businesses they are participating and it's difficult to improve your quality of service if you don't have any input from your customers about how to improve. Thus, gathering customer feedback and using it to measure service quality should be a significant part of nearly any business's game plan [7].

According to D'Aveni and Ravenscraft [39], every business has limited resources, and every manager has limited time and attention. Outsourcing can help your business to shift its focus from peripheral activities toward work that serves the customer, and it can help managers set their priorities more clearly. According to Muweesi [28], successful implementation of an outsourcing strategy has been credited with helping to increase capacity, improve capacity, and improve quality. Personnel expenses were the primary reason behind outsourcing; however, it also improves operating efficiency.

2.5 Effectiveness of Outsourcing Services in Higher Educational Institutes in Sri Lanka

Outsourcing, which is a form of privatisation, refers to the concept of transferring the provision of a campus service to a private company [40]. This type of business consists of contracting out with private or external businesses to provide needed services or products at less cost and/or of superior quality than the university. Outsourcing is a not a new concept to institutions of higher education and it has been moderately growing in this particular sector despite the limited knowledge of the concept [41]. For decades, Sri Lankan colleges and universities have been able to easily and comfortably provide the needed and highly demanded quality education through financial help and support from public funds, state grants, funding for research, private organisations, and alumni. However, a slowing economy, declining students' enrollments, state budget cuts, decreased funding for research, and rapidly increasing costs

of higher education have led many colleges and universities into extensive financial difficulties [3].

Over the last ten years, outsourcing has become the most prominent strategic change in the private sector organisations in Sri Lanka, even though this concept has thirty-six years history [18]. Under severe budgetary constraints, the government of Sri Lanka in recent years, has made a desperate effort to limit capital outlays in the public sector non-profit and welfare-oriented organisations. Therefore most of the public sector organisations in Sri Lanka have to face the challenge of identifying and implementing cost effective strategies to perform their functions in an environment of limited budgetary allocations. According to Gupta et al. [9], outsourcing assumes that if an institution cannot provide a service or product at less cost than, and of equal quality to, an external provider, then it should purchase the service or product from an external provider Generally, when people think about outsourcing, they do not consider its impact on education; however, as budget restraints tighten and cost reduction initiatives are implemented, it means that even colleges and universities have to consider all of the options to get the most out of the operating capital. Outsourcing allows for an institution to concentrate on its core competencies.

According to Kannangara [7], Sri Lanka was awarded the prestigious "Outsourcing Destination of the Year" award by the National Outsourcing Association (NOA), UK on 23rd of October 2013. In addition Sri Lanka was ranked as one of the top 25 Global Outsourcing Destinations by A.T. Kearney, a global management consulting firm. Services providers are experts in their respective fields of operations and they possess the latest technology and knowledge to complete the assigned job. Colleges and universities do not want to spend resources to do market research or other formalities in acquiring the latest techniques. Contracts may be structured so that vendors bear the cost of acquiring new equipment and technology. Similarly, institutions can take advantage of economies of scale achieved by vendors who specialise in a particular service area, allowing them to acquire inputs at a lower cost. Vendors are also forced to use the most cost-effective means to provide a service to ensure that a profit is realized and this will be an added advantage to the higher education institution which has other prime goals and objectives.

3. CONCEPTUALISATION AND METHODOLOGY

3.1 Conceptualisation

3.1.1 Conceptual framework

Conceptual framework connects constructs and variables [14]. A conceptual framework explains either graphical and or in a narrative form, the main things to be studied.

Fig. 1 depicts as commonly known, conceptual framework connects constructs and variables. The Fig. 1 depicts the variables of this study. According to Fig. 1, the variables of effectiveness of outsourcing are constructs. Further it can be measured in terms of five variables that are Cost effectiveness, Organisational system and Operational efficiency, Strategic and Organisational effectiveness, Human resources and organisational culture and Quality of outsourcing as recommended by Lynn & Lauts [14]. Each factor is defined in detail in the following subsections, which have been titled as factor names.

3.1.2 Hypothesis development

Thus the following three hypotheses were formed to identify the answers for the research question. These hypotheses can be summarised as given below.

H_1: *There are significant differences in the effectiveness of cleaning service among Sri Lankan universities*
H_2: *There are significant differences in the effectiveness of cafeteria service among Sri Lankan universities*
H_3: *There are significant differences in the effectiveness of security service among Sri Lankan universities*

3.1.3 Description of scope of study variable

Outsourcing can be defined as withdrawing certain stages/activities from the value-chain system and relying on outside vendors to supply the needed products, support services, or functional activities. Universities and business world have comparable issues and concerns related to outsourcing. Thus, it has also gained marvelous drive in the university system. Hence Sri Lankan universities attempt to reduce costs and improve the quality of the service. They have demonstrated increased interest in outsourcing over the last decade [21].

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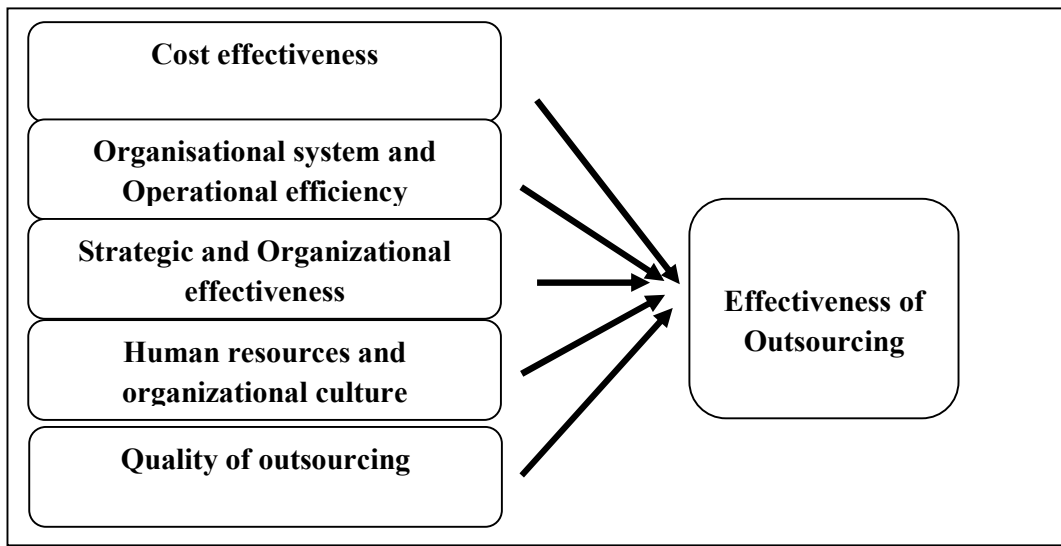
Fig. 1. Conceptual framework [14]

Table 3 shows that the top… 2002. These functions were the only services outsourced by at least 50 percent of the schools surveyed. Wide arrays of services are outsourced, from endowment fund management to payroll to sports venues. Likewise Sri Lankan universities also outsource different kinds of services based on their financial availability. Hence Cafeteria services, Cleaning services and Security services have been identified as a major and common outsourcing services among 03 different tiers of Sri Lankan universities. Thus the study selected three value chain activities namely, cleaning, cafeteria and security services that have been outsourced by the University of Peradeniya, Sabaragamuwa and Eastern University of Sri Lanka.

3.1.3.1 Cleaning service

Cleaning services also known as janitorial services. Hence the Janitorial services relate to commercial property cleaning, including professional offices, educational, medical and industrial business cleaning. Some commercial janitorial services can include maintenance or property management services. Those who perform the work are referred to as custodians, janitors or cleaners.

3.1.3.2 Cafeteria services

A cafeteria is a type of food service location in which there is little or no waiting staff table service, whether a restaurant or within an institution such as a large office building or school; a school dining location is also referred to as a dining hall or canteen. Cafeteria services firms typically provide higher quality food for less money. They specialise in efficiently providing quality food with varied dining options, and at lower costs for your valued employees. They have the established connections to qualified food vendors and suppliers along with the expertise to use their resources effectively to obtain the products they need at the lowest possible price. The bottom line is that the organisation will pay less for their services while receiving a much better quality of food offerings for organisational employees.

3.1.3.3 Security services

Security outsourcing can be defined as an arrangement in which one company provides security services for another company. Meanwhile Outsourced security services are always an option for enterprises. The Security areas that are commonly Outsourced Security function namely; Security monitoring, Incident management, Emergency response and forensic analysis and Vulnerability assessment.

3.2 Methodology of this Study

3.2.1 Research design

This research involves exploring the answers for research questions and empirical testing of hypotheses. Hence the researcher applied quantitative methodology for this study. Thus,

survey method has been adopted. Constructs of Effectiveness of outsourcing services are well defined and measurable. Therefore, researcher used quantitative methodology for this study.

As per the quantitative methodology, the questionnaires were issued to the administrative staff of the respective universities by visiting their work place and through the mail post. The data was entered in data base. Then, the database was analysed to identify the answer for the research questions. Then descriptive analysis was performed to present both the personal and study information followed by several analysis such as T-test, Chi-square, and ANOVA analysis to test the Hypotheses.

3.2.2 Sample selection

There are currently fifteen universities in Sri Lanka, which are established under the authority of the University Grants Commission [10]. Meanwhile these 15 universities were tiered into 3 groups for the purpose of quality and innovation grant (QIG) for undergraduate study programs by Sri Lankan universities [11].

Cluster sampling method was selected to derive the samples for the study. It is a probability sampling technique. In a cluster sample, the population is divided into non-overlapping subpopulations usually based on geographic or political boundaries. For a simple cluster sample, a random sample of subpopulations (clusters) is obtained and, within each selected cluster, each subject is sampled. More often, a two-stage cluster sample design is used where a random sample of clusters is selected and, within each cluster, a random sample of subjects.

According to the table stated in scope of this study (Table 2) Sri Lankan universities were divided into three different Tiers. These tiers are considered as three clusters. Hence 03 universities have been randomly selected from each cluster as a sample for this study. They are namely; Eastern University, Sri Lanka from Tier 1, Sabaragamuwa University of Sri Lanka from Tier 2 and University of Peradeniya from Tier 3. As the second stage, all the samples (administrative employees) in the selected universities were given questionnaires to get the responses. As the second stage, the questionnaires were dispatched to all 141 administrative employees [10] of 03 selected universities to get the responses. Thus, 132 questionnaires were received from the

respondents, hence the response rate of this study is 94%, which ensures the adequate response for the study.

3.2.3 Collection of data

This study was carried out based on primary data. Structured questionnaire was used to collect data. The questionnaire comprised of statements on the dimension of Entrepreneurial competencies. Hence, 5-level Likert scale which ranges from "Strongly Disagree" to "Strongly Agree" were applied in the questionnaire to identify responses. The Random variables were assigned for the purpose of quantification of quantitative variable as follows:

1. Strongly disagree
2. Disagree
3. Neither Agree nor Disagree
4. Agree
5. Strongly agree

3.2.4 Data presentation, analysis and evaluation

Data were presented with appropriate tables and figures with the help of Univariate analyses using the Statistical Product and Service Solutions software, an IBM product [42] where required.

Type of data analysis and evaluation are determined by the research problem and research questions. In this study, Univariate, analysis was used to analyse and evaluate the data. Furthermore, t-test, chi-square, and ANOVA analysis was performed to test the hypotheses.

3.2.4.1 Univariate analysis and evaluation

Univariate analysis is appropriate for any single variable to explore individual qualities of its data. In this study, each of the study variables was measured with 5-level Likert scale on average. Sekaran [43] describes the mean of a sample as "a measure of central tendency that offers a general picture of the data without unnecessarily inundating one with each of the observations in a data set or sample. The measure of mean value of a variable/dimension is compared with the medium value 3 of the Likert's scale, thus implying that a respondent is unbiased and this unbiased nature indicates that the respondent has the mean value of $X_i = 3$ of Likert's scale. This study evaluated the level of individual characteristics of dimensions and variables by using the following criteria (refer to Table 4).

3.2.4.2 Analysis of variance (ANOVA)

Coolican [44] explains that "Analysis of variance procedures are powerful parametric methods for testing the significance of differences between sample means where more than two conditions are used, or even when several independent variables are involved." ANOVA makes it feasible to appraise the separate or combined influences of several independent variables on the experimental criterion [46].

In one-way ANOVA, the total variation is partitioned into two components as between groups and within groups. Between groups represents variation of the group means around the overall mean. Within group represents variation of the individual scores around their respective group means. Significant value indicates the significant level of the F-test.

3.2.4.3 Testing hypothesis of ANOVA analysis

H_0: There are no significant differences among study variables ($p \geq 0.05$)

H_1: There are significant differences among study variables ($p < 0.05$)

Decision: Reject H_0, if $p < 0.05$.

Table 3. Services that has been outsources by Universities

Outsourced services	Percentage
Food service	61
Book Store	52
Endowment fund	41
Legal service	28
Cleaning	25
Laundry	20
Security	17
Copy center	17
Debit card	16
Payroll	15
Computer store	10
Energy Management	09
Mechanical maintenance	09
Grounds	08
Sports venues	04
Residence Management	04
Information technology	04
Electrical	04
Mail room	03
Facility Management	02

(Source; [45])

Table 4. Decision criteria for Univariate analysis

Decision criteria	Decision attribute
$1.0 \leq Xi \leq 2.5$	Low Level
$2.5 < Xi \leq 3.5$	Moderate Level
$3.5 < Xi \leq 5.0$	High Level

Where Xi = mean value of an indicator/dimension/variable
Source: Developed for the study purpose

4. ANALYSIS AND DISCUSSION

Objective 01: *To find out the level of effectiveness of outsourcing services with regard to cleaning service in Sri Lankan Universities.*

Table 5 shows the average values of the dimensions of service outsourcing along with its standard deviations. According to the table, all the dimensions about the outsourcing impact of cleaning service are at high level in Sri Lankan universities. Standard deviation values are less than 1.0 and therefore there are no more variations in the responses. Among the dimensions, outsourcing impact on service quality is at highest level. The overall effectiveness of cleaning service is at high level (3.87) with a standard deviation of 0.49.

Objective 02: *To find out the level of effectiveness of outsourcing services with regard to cafeteria service in Sri Lankan Universities.*

According to Table 6, the overall effectiveness of cafeteria service is at moderate level (3.31) with a standard deviation of 0.49 in all three universities. Four dimensions about the outsourcing impact of cleaning service are at moderate level in Sri Lankan universities except one dimensions. The dimensions namely, Impact on Strategic and Organisation Effectiveness, Impact on Organisation Systems and Operations, Impact on Human Resources and Organisation Culture and Impact on Service Quality are at a moderate level in Sri Lankan universities. Standard deviation values are less than 1.0 and therefore there are no more variations in the responses. Among the dimensions, outsourcing impact Cost and Cost-Efficiency is at highest level.

Objective 03: *To find out the level of effectiveness of outsourcing services with regard to security service in Sri Lankan Universities.*

Table 7 shows the average values of the dimensions along with its standard deviations.

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According to the table, all the dimensions about the outsourcing impact of security service are at high level in Sri Lankan universities. Standard deviation values are less than 1.0 and therefore there are no more variations in the responses. Among the dimensions, outsourcing impact on Cost and Cost-Efficiency is at highest level. The overall effectiveness of cleaning service is at high level (3.76) with a standard deviation of 0.49.

Objective 04: *To assess whether there are any differences in the effectiveness of outsourced cleaning service among the universities in Sri Lanka.*

Differences in cleaning service: Data were gathered from administrative staff of three universities in Sri Lanka. Analysis of variance (ANOVA) was carried out to test whether there are any differences in the effectiveness of cleaning service among those three universities. Results of the descriptive analysis are shown in Table 8.

Differences among the mean values can be observed in Table 8. Table shows that effectiveness of cleaning service in all the three universities is at high level and no difference can be observed in those values. To test the significance of the results One-Way ANOVA results were utilised.

According to Table 9, F statistics value 1.809 has an associated significant value of 0.168 which is greater than 0.05. As a result, there is no evidence to reject the null hypothesis and it can be concluded that there are no significant differences in the effectiveness of cleaning service among Sri Lankan universities.

Hypothesis 1

- H_0: *There are no significant differences in the effectiveness of cleaning service among Sri Lankan universities*
- H_1: *There are significant differences in the effectiveness of cleaning service among Sri Lankan universities*

A total comparison of the mean values obtained for effectiveness of outsourced cleaning service, its dimensions and its indicators in the three universities has been presented in the following Table 10.

Table 10 shows the overall picture of the effectiveness of outsourced cleaning service in University of Peradeniya, Sabaragamuwa University of Sri Lanka and Eastern University,

Sri Lanka. According to the table, overall effectiveness of outsourced cleaning service is at high level and it is also high level at all the universities. There is a similarity among these universities that outsourcing impact of cleaning service is higher on service quality of the three universities. As far as University of Peradeniya is considered, outsourcing impact of cleaning service on strategic and organisation effectiveness, organisation systems and operations, cost and cost-efficiency, human resources and organisation culture and service quality is at high level. As far as Sabaragamuwa University of Sri Lanka is considered, outsourcing impact of cleaning service on cost and cost-efficiency, human resources and organisation culture and service quality is at high level whereas the impact is at moderate level on strategic and organisation effectiveness and organisation systems and operations. In Eastern University, outsourcing impact of cleaning service on strategic and organisation effectiveness, organisation systems and operations, cost and cost-efficiency and service quality is at high level whereas it is at moderate level on human resources and organisation culture.

Objective 05: *To assess whether there are any differences in the effectiveness of outsourced cafeteria service among the universities in Sri Lanka.*

Differences in cafeteria service: Data were gathered from administrative staff of three universities in Sri Lanka. Analysis of variance (ANOVA) was carried out to test whether there are any differences in the effectiveness of cafeteria service among those three universities. Results of the descriptive analysis are shown in Table 11.

Differences among the mean values can be observed in Table 11. Table shows that effectiveness of cafeteria service is at high level at University of Peradeniya, moderate level at Sabaragamuwa University of Sri Lanka and low level at Eastern University, Sri Lanka. To test the significance of the differences, One-Way ANOVA results were utilised.

According to Table 12, F statistics value 260.458 has an associated significant value of 0.000 which is less than 0.05. As a result, there is sufficient evidence to reject the null hypothesis and it can be concluded that there are significant differences in the effectiveness of cafeteria service among Sri Lankan universities.

Hypothesis 2

H$_0$: *There are no significant differences in the effectiveness of cafeteria service among Sri Lankan universities*

H$_1$: *There are significant differences in the effectiveness of cafeteria service among Sri Lankan universities*

To figure out the differences in detail, Post Hoc Test needs to be carried out. In order to decide the type of Post Hoc test, homogeneity of variance test was conducted and the results are presented in Table 13.

Levene statistic value is 0.699 with an associated significant value of 0.499. As the significant value is greater than 0.05, the null hypothesis for variance test is not rejected and hence homogeneity of variance assumption is accepted and prevails. Therefore, it can be concluded that the variances are equal. As equal variance was assumed, Scheffe test was selected for multiple comparisons. The results are shown in Table 14.

Table 14 clearly reveals that the differences are significant at 5% significance level. Mean difference between UP and SUSL is 0.595 and between UP and EUSL is 1.812. This shows that University of Peradeniya's effectiveness of cafeteria service is higher than that of SUSL and EUSL whereas mean difference of 1.217 between SUSL and EUSL shows that SUSL's effectiveness of cafeteria service is higher than that of EUSL.

A total comparison of the mean values obtained for effectiveness of outsourced cafeteria service, its dimensions and its indicators in the three universities has been presented in Table 15.

Table 15 shows the overall picture of the effectiveness of outsourced cafeteria service in University of Peradeniya, Sabaragamuwa University of Sri Lanka and Eastern University, Sri Lanka. According to the table, overall effectiveness of outsourced cafeteria service is at moderate level. It should be noted that this is not the case in all the three universities. Effectiveness of outsourced cafeteria service is at moderate level at Sabaragamuwa University of Sri Lanka while it is at low level at Eastern University, Sri Lanka. On the contrary, effectiveness of outsourced cafeteria service is at high level at University of Peradeniya. Even though outsourcing impact of cafeteria service on strategic and organisation effectiveness, organisation systems and operations, human resources and organisation culture and service quality is at moderate level, it is at high level on cost and cost-efficiency at Sabaragamuwa University of Sri Lanka. Similarly, even though outsourcing impact of cafeteria service on strategic and organisation effectiveness, organisation systems and operations, human resources and organisation culture and service quality is at low level, it is at moderate level on cost and cost-efficiency at Eastern University, Sri Lanka.

As far as University of Peradeniya is considered, outsourcing impact of cafeteria service on strategic and organisation effectiveness, organisation systems and operations, cost and cost-efficiency, human resources and organisation culture and service quality is at high level and among them, the higher impact is observed on service quality.

Objective 06: *To assess whether there are any differences in the effectiveness of outsourced security service among the universities in Sri Lanka.*

Differences in security service: Data were gathered from administrative staff of three universities in Sri Lanka. Analysis of variance (ANOVA) was carried out to test whether there are any differences in the effectiveness of security service among those three universities. Results of the descriptive analysis are shown in Table 16.

Differences among the mean values can be observed in Table 16. Table shows that effectiveness of cafeteria service is at high level in both University of Peradeniya and Sabaragamuwa University of Sri Lanka, but at moderate level in Eastern University, Sri Lanka. To test the significance of the differences, One-Way ANOVA results were utilised.

According to Table 17, F statistics value 9.265 has an associated significant value of 0.000 which is less than 0.05. As a result, there is sufficient evidence to reject the null hypothesis and it can be concluded that there are significant differences in the effectiveness of security service among Sri Lankan universities.

Hypothesis 3

H$_0$: *There are no significant differences in the effectiveness of security service among Sri Lankan universities*

H₁: *There are significant differences in the effectiveness of security service among Sri Lankan universities*

To figure out the differences in detail, Post Hoc Test needs to be carried out. In order to decide the type of Post Hoc test, homogeneity of variance test was conducted and the results are presented in Table 18.

Levene statistic value is 11.151 with an associated significant value of 0.000. As the significant value is less than 0.05, the null hypothesis for variance test is rejected and hence homogeneity of variance assumption is rejected. Therefore, it can be concluded that the variances are unequal. As equal variance was not assumed, Games-Howell test was selected for multiple comparisons. The results are shown in Table 19.

Table 19 clearly reveals that the differences are significant at 5% significance level except for the difference between UP and SUSL. Mean difference between UP and EUSL is 0.405. This shows that University of Peradeniya's effectiveness of security service is higher than that of EUSL whereas mean difference of 0.460 between SUSL and EUSL shows that SUSL's effectiveness of security service is also higher than that of EUSL.

A total comparison of the mean values obtained for the effectiveness of outsourced security service, its dimensions and its indicators in the three universities has been presented in Table 20. It shows the overall picture of the effectiveness of outsourced security service in University of Peradeniya, Sabaragamuwa University of Sri Lanka and Eastern University, Sri Lanka. According to the table, overall effectiveness of outsourced security service is at high level and it is also high level at University of Peradeniya and Sabaragamuwa University of Sri Lanka. However, the effectiveness is at moderate level at Eastern University, Sri Lanka. There is a similarity between University of Peradeniya and Eastern University, Sri Lanka that outsourcing impact of security service is higher on cost and cost-efficiencies of the two universities. At the same time, outsourcing impact of security service is higher on service quality at Sabaragamuwa University of Sri Lanka. As far as University of Peradeniya and Sabaragamuwa University of Sri Lanka are considered, outsourcing impact of security service on strategic and organisation effectiveness, organisation systems and operations, cost and cost-efficiency, human resources and organisation culture and service quality is at a high level. As far as Eastern University is considered, outsourcing impact of security service on organisation systems and operations, cost and cost-efficiency and service quality is at high level whereas it is at moderate level on strategic and organisation effectiveness and human resources and organisation culture.

Table 5. Descriptive statistics of cleaning services

Variable / Dimension / Indicator	Overall	
	Mean	SD
Impact on Strategic and Organisation Effectiveness	3.74	0.87
Impact on Organisation Systems and Operations	3.68	0.85
Impact on Cost and Cost-Efficiency	3.92	0.81
Impact on Human Resources and Organisation Culture	3.84	0.71
Impact on Service Quality	4.15	0.58
Effectiveness of Outsourcing Services – Cleaning Services	**3.87**	**0.49**

(Source; Survey Data)

Table 6. Descriptive statistics of cafeteria services

Variable / Dimension / Indicator	Overall	
	Mean	SD
Impact on Strategic and Organisation Effectiveness	3.26	1.02
Impact on Organisation Systems and Operations	3.24	1.01
Impact on Cost and Cost-Efficiency	3.71	0.81
Impact on Human Resources and Organisation Culture	2.93	1.03
Impact on Service Quality	3.41	1.08
Effectiveness of Outsourcing Services – Cafeteria Services	**3.31**	**0.83**

(Source; Survey Data)

Table 7. Descriptive statistics of security services

Variable / Dimension / Indicator	Overall	
	Mean	**SD**
Impact on Strategic and Organisation Effectiveness	3.66	0.84
Impact on Organisation Systems and Operations	3.75	0.70
Impact on Cost and Cost-Efficiency	3.87	0.74
Impact on Human Resources and Organisation Culture	3.69	0.74
Impact on Service Quality	3.81	0.81
Effectiveness of Outsourcing Services – Security Services	**3.76**	**0.52**

(Source; Survey Data)

Table 8. Effectiveness of cleaning services: Descriptive statistics

University	N	Mean	SD
University of Peradeniya	68	3.94	0.52
Sabaragamuwa University of Sri Lanka	31	3.77	0.49
Eastern University, Sri Lanka	33	3.80	0.39
Total	132	3.87	0.49

(Source: Survey data)

Table 9. Effectiveness of cleaning services: ANOVA

Description	Sum of squares	df	Mean square	F	Sig.
Between Groups	0.847	2	0.423	1.809	0.168
Within Groups	30.193	129	0.234		
Total	31.039	131			

(Source: Survey data)

Table 10. Effectiveness of outsourced cleaning services

Variable / Dimension / Indicator	Overall		UP		SUSL		EUSL	
	Mean	**SD**	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**
Impact on Strategic and Organisation Effectiveness	3.74	0.87	3.92	0.94	3.25	0.76	3.82	0.65
Impact on Organisation Systems and Operations	3.68	0.85	3.85	0.89	3.07	0.78	3.92	0.47
Impact on Cost and Cost-Efficiency	3.92	0.81	3.87	0.83	4.23	0.60	3.71	0.86
Impact on Human Resources and Organisation Culture	3.84	0.71	3.98	0.76	3.96	0.59	3.42	0.56
Impact on Service Quality	4.15	0.58	4.10	0.60	4.33	0.56	4.11	0.56
Effectiveness of Outsourcing Services – Cleaning Services	**3.87**	**0.49**	**3.94**	**0.52**	**3.77**	**0.49**	**3.80**	**0.39**

(Source: Survey data)

Table 11. Effectiveness of catering services: Descriptive statistics

University	N	Mean	SD
University of Peradeniya	68	3.90	0.34
Sabaragamuwa University of Sri Lanka	31	3.31	0.38
Eastern University, Sri Lanka	33	2.09	0.42
Total	132	3.31	0.83

(Source: Survey data)

Table 12. Effectiveness of catering services: ANOVA

Description	Sum of squares	df	Mean square	F	Sig.
Between Groups	72.944	2	36.472	260.458	0.000
Within Groups	18.064	129	0.140		
Total	91.008	131			

(Source: Survey data)

Table 13. Effectiveness of cafeteria services – Test of homogeneity of variances

Levene statistic	df1	df2	Sig.
0.699	2	129	0.499

(Source: Survey data)

Table 14. Effectiveness of cafeteria services – Post Hoc multiple comparisons between the three universities

(I) Name of University	(J) Name of University	Mean difference (I-J)	Std. error	Sig.
UP	SUSL	0.595	0.081	.000
	EUSL	1.812	0.079	.000
SUSL	EUSL	1.217	0.094	.000

(Source: Survey data)

Table 15. Effectiveness of outsourced cafeteria services

Variable / Dimension / Indicator	Overall		UP		SUSL		EUSL	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Impact on Strategic and Organisation Effectiveness	3.26	1.02	3.83	0.71	3.41	0.64	1.95	0.61
Impact on Organisation Systems and Operations	3.24	1.01	3.97	0.57	3.06	0.54	1.90	0.47
Impact on Cost and Cost-Efficiency	3.71	0.81	3.94	0.73	4.09	0.53	2.88	0.60
Impact on Human Resources and Organisation Culture	2.93	1.03	3.61	0.73	2.76	0.59	1.68	0.50
Impact on Service Quality	3.41	1.08	4.16	0.65	3.23	0.64	2.04	0.59
Effectiveness of Outsourcing Services – Cafeteria Services	**3.31**	**0.83**	**3.90**	**0.34**	**3.31**	**0.38**	**2.09**	**0.42**

(Source: Survey data)

Table 16. Effectiveness of security services: Descriptive statistics

University	N	Mean	SD
University of Peradeniya	68	3.85	0.32
Sabaragamuwa University of Sri Lanka	31	3.90	0.63
Eastern University, Sri Lanka	33	3.44	0.63
Total	132	3.76	0.52

(Source: Survey data)

Table 17. Effectiveness of security services: ANOVA

	Sum of squares	df	Mean square	F	Sig.
Between Groups	4.473	2	2.237	9.265	0.000
Within Groups	31.142	129	0.241		
Total	35.616	131			

(Source: Survey data)

Table 18. Effectiveness of security services – Test of homogeneity of variances

Levene statistic	df1	df2	Sig.
11.151	2	129	0.000

(Source: Survey data)

Table 19. Effectiveness of security services – Post Hoc multiple comparisons between the three universities

(I) Name of University	(J) Name of University	Mean difference (I-J)	Std. error	Sig.
UP	SUSL	-0.054	0.119	0.892
	EUSL	0.405	0.116	0.003
SUSL	EUSL	0.460	0.157	0.013

(Source: Survey data)

Table 20. Effectiveness of outsourced security services

Variable / Dimension / Indicator	Overall		UP		SUSL		EUSL	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Impact on Strategic and Organisation Effectiveness	3.66	0.84	3.72	0.79	3.86	0.84	3.37	0.89
Impact on Organisation Systems and Operations	3.75	0.70	3.83	0.67	3.78	0.74	3.54	0.70
Impact on Cost and Cost-Efficiency	3.87	0.74	3.93	0.60	4.05	0.78	3.55	0.88
Impact on Human Resources and Organisation Culture	3.69	0.74	3.91	0.73	3.74	0.70	3.20	0.58
Impact on Service Quality	3.81	0.81	3.83	0.78	4.07	0.74	3.54	0.88
Effectiveness of Outsourcing Services – Security Services	**3.76**	**0.52**	**3.85**	**0.32**	**3.90**	**0.63**	**3.44**	**0.63**

(Source: Survey data)

5. CONCLUSION AND RECOMMENDA-TION

5.1 Conclusion

This research study aimed at finding out the effectiveness of outsourcing services in Sri Lanka Universities. Six research objectives were formulated for this research study.

Research objective one was to find out the level of effectiveness of outsourcing services with regard to cleaning service in Sri Lankan Universities. This main objective was then divided into five sub objectives, each objective to find out the level of outsourcing impact on each dimension of outsourcing effectiveness. It was found out that overall effectiveness of cleaning service is at high level. At the same time outsourcing impact of cleaning service on strategic and organisation effectiveness, organisation systems and operations, cost and cost-efficiency, human resources and organisation culture and service quality is also at a high level.

Research objective two was to find out the level of effectiveness of outsourcing services with regard to cafeteria service in Sri Lankan Universities. This main objective was then divided into five sub objectives, each objective to find out the level of outsourcing impact on each dimension of outsourcing effectiveness. It is concluded that the overall effectiveness of outsourced cafeteria service is at a moderate level. At the same time, the outsourcing impact of cafeteria service on strategic and organisation effectiveness, organisation systems and operations, human resources and organisation culture and service quality is at a moderate level but the impact on cost and cost-efficiency is at high level.

Research objective three was to find out the level of effectiveness of outsourcing services with regard to security service in Sri Lankan Universities. This main objective was then

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divided into five sub objectives, each objective to find out the level of outsourcing impact on each dimension of outsourcing effectiveness. Overall effectiveness of security service is at high level. At the same time outsourcing impact of security service on strategic and organisation effectiveness, organisation systems and operations, cost and cost-efficiency, human resources and organisation culture and service quality is also at high level.

Fourth research objective was to assess whether there are any differences in the effectiveness of outsourced cleaning service among the universities in Sri Lanka. It is concluded that there are no differences in the effectiveness of outsourced cleaning service among the universities in Sri Lanka. It can be generalised that effectiveness of outsourced security service is at high level in old established, newly established and north and east universities.

Fifth research objective was to assess whether there are any differences in the effectiveness of outsourced cafeteria service among the universities in Sri Lanka. It was found out that there are differences in the effectiveness of outsourced cafeteria service among the universities in Sri Lanka. Effectiveness of outsourced cafeteria service is at high level at University of Peradeniya, moderate level at Sabaragamuwa University of Sri Lanka and low level at Eastern University, Sri Lanka. It can be generalised that effectiveness of outsourced cafeteria service is at high level at old established universities, moderate level at newly established universities and low level at north and east universities.

Sixth research objective was to assess whether there are any differences in the effectiveness of outsourced security service among the universities in Sri Lanka. It is concluded that there are differences in the effectiveness of outsourced security service among the universities in Sri Lanka. No difference between University of Peradeniya and Sabaragamuwa University of Sri Lanka was observed because effectiveness of outsourced security service is at high level in both of the universities. On the contrary, effectiveness of outsourced security service is at moderate level in Eastern University, Sri Lanka. It can be generalised that effectiveness of outsourced security service is at high level in both old established and newly established universities but at moderate level at North East Universities.

5.2 Recommendations

Among the three universities considered in this study, more attention should be given to Eastern University, Sri Lanka because problems have been identified with two outsourced functions, cafeteria and security. The effectiveness of outsourced cafeteria function is at low level and effectiveness of outsourced security function is at moderate level. Further, cafeteria service has been found to be problematic in Sabaragamuwa University of Sri Lanka. In this university, the effectiveness of outsourced cafeteria function is at moderate level.

Often students and even staff members complain on poor quality of food, long waiting time for customers, and over charging. The vendors' response to issues is that, with a large number of students (more than 1500) they are unable to improve the quality of their services without the mutual support of the university administration and the students. They expect the disciplined behaviour from the part of students and discuss the issues from time to time with the committee including the vendors, university administration and representatives of Student Councils.

University authorities have to spend significant amount of time dealing with the activities (from selection of vendor to termination of the contract) connected to cafeteria service. Supervision is needed under both outsourcing and in-house sourcing (if it is decided to run in-house). Regarding cafeteria services vendor has less power to bargain because the university has the power to take a decision to continue or not the same vendor [7].

Similarly, the selection of vendor for security service also should be given more attention than earlier. Number of factors should be considered before selecting the vendor of security services. Some are given below:

- Financial implications:
  The direct and indirect cost to the institution, which include the cost of the current system and those of all viable alternatives.
- Human resource implications:
  How employees will be affected.
- Service quality implications:
  How each alternative affects the needs of the institution and its members?
- Mission and cultural implications:
  The effects of choosing an option inconsistent with the institution's

stakeholders (students, faculty, staff and alumni).

▪ Managerial control and efficiency implications:

The likely effect of options being considered on the institution's ability to control the direction and priorities of the service.

▪ Legal and ethical implications:

The level of potential liability and risk that each option, tax ramifications, any potential conflicts of interest

COMPETING INTERESTS

Author has declared that no competing interests exist.

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