

Utilizing Local Communities towards the Marketability of EDC-UUM: A Supply Chain Model

Engku Muhammad Nazri ^{#1}, Masnita Misiran ^{#2},

Suzzaini Abdullah ^{*3}

[#]*School of Quantitative Sciences, Universiti Utara Malaysia,*

06010 UUM Sintok, Kedah, Malaysia

¹*enazri@uum.edu.my*

²*masnita@uum.edu.my*

^{*}*School of Tourism, Hospitality and Environmental Management, Universiti Utara Malaysia, 06010 UUM Sintok, Kedah, Malaysia*

³*suzzaini@uum.edu.my*

Abstract— This study proposes a supply chain model for the Executive Development Centre of Universiti Utara Malaysia (EDC-UUM) to enhance the usability and the visibility of EDC-UUM, thus increasing the demand for EDC-UUM services and indirectly, the profit as well. Specifically, this study embarks on two objectives which are to determine the resources available and opportunities that can be grabbed to strengthen the functions and usability of EDC-UUM and to develop a supply chain model for EDC-UUM that will incorporate all the resources and opportunities so that the demand for and the utilization of the training/seminar rooms and hotel rooms increases. To achieve the first objective, a SWOT analysis was conducted by assessing the current practice and future plans of EDC-UUM. The second objective was achieved by studying the characteristic of a hotel supply chain, and then mapping the supply chain to suit the characteristics of EDC-UUM. In this report, the supply chain model focuses on the first and second-tier suppliers for EDC-UUM's product development that directly involve the use of local community members. Four new ways to engage the community members were tabled. They are unemployed and talented youths to be trained to be resident artists, amateur cooks to be invited as guest cooks, traditional masseurs/masseuses to provide the massage service for the hotel guests, and the local farmers to provide raw food materials.

Keywords— *Supply chain model, EDC-UUM, hotel management, local community, hotel services*

1. Introduction

Since the 1970s, quality management has been a dominant strategic emphasis of companies. In the

1980s, topics like lean and flexible manufacturing, and just-in-time became the means for companies to gain a competitive advantage in a quality-management environment. . Now, globalization and the advancement of information technology have provided the catalysts for supply chain management (SCM) to become the strategic means for companies to manage quality, satisfy customers, and remain competitive [1]. The term "supply chain management" arose in the late 1980s and came into widespread use in the 1990s. Prior to that time, businesses used terms such as "logistics" and "operations management" instead [2].

SCM can be defined as either, the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third party service providers, and customers [3]. It can also be defined as the processes of creating and fulfilling demands for goods and services by encompassing a trading partner community engaged in the common goal of satisfying end customers [4]. Prior to that, [5] elaborately defined SCM as "managing business activities and relationships (a) internally within an organization, (b) with immediate suppliers, (c) with first and second-tier suppliers and customers along the supply chain, and (d) with the entire supply chain. Some other definitions of SCM can be found in [6], and [7], to name just a few.

Supply chain, on the other hand is “the alignment of firms that bring products or services to market” [8]. It can also be defined as “a network of facilities and distribution options that performs the functions of these materials into intermediate and finished products, and the distribution of these finished products to customers” [9]. It consists of all stages involved, directly or indirectly, in fulfilling a customer request. The supply chain does not only include the manufacturer and suppliers, but also transporters, warehouses, retailers, and customers themselves [10]. Furthermore, it also includes purchasing, manufacturing, warehousing, transportation, customer service, demand planning, supply planning and SCM. It is made up of the people, activities, information, and resources involved in moving a product from its suppliers to customers. Recognized or not, supply chains exist in both service and manufacturing organizations, although the complexity of the chain may vary greatly from industry to industry and from firm to firm. Every organization has a unique chain [11].

1.1 The Executive Development Centre of Universiti Utara Malaysia

The Executive Development Centre of Universiti Utara Malaysia (EDC-UUM) started its operations in September 2006 as a training and seminar venue cum hotel. Specifically, EDC-UUM was established to perform four objectives as below:

- a. To act as Universiti Utara Malaysia (UUM)’s training hotel, not only to the students and staff of UUM, but also to all the other learning institutions as well as other government institutions and corporate bodies.
- b. To generate income for UUM.
- c. To provide a unique, friendly, pleasant service, and atmosphere for UUM guests.
- d. To create employment opportunities in the hotel industry to the potential local community.

At the time this study was conducted, Mr. Mohd Fauzi Zainal Abidin was the General Manager who was responsible for the entire operation of the EDC-UUM establishment. He held responsible over the overall EDC-UUM operation and answerable to the Vice Chancellor of UUM. He was accountable to the management team, overall management of hotel staff, budgeting and

financial management, creating and enforcing business objectives and goals, managing projects and renovations, management of emergencies and other major issues involving guests, employees, or the facility, public relations with the media, local governments, and other businesses. At this point in time, the demand for training and seminar rooms as well as hotel rooms mostly came from UUM itself with some occasional demand from outside of UUM. Although the yearly revenue generated had already exceeded its operating cost for the past three years, record shows that the utilization rate of the seminar and training facilities as well as hotel rooms was still rather low (62% and 35% respectively) and the demand pattern was very seasonal. Thus, there is a need for the EDC-UUM management to increase its effort to improve and enhance its marketability and usability.

UUM and its surroundings have a lot to offer. As a management university, UUM has plenty of management training experts. Its well-preserved training grounds, green campus, large student population, good highway connection, and its location that is very near to Thailand as well as other universities such as Universiti Malaysia Perlis (Unimap) and Universiti Teknologi MARA, Arau Branch (UitM Arau) are some other plus points. All these should be capitalized by the EDC-UUM management to generate optimal revenue.

Currently, however, there is no concerted effort done by either the EDC-UUM management or the UUM management to really think of how to utilize the available opportunities. Therefore, it is high time for both the management teams to properly strategize EDC-UUM’s functions.

1.2 Objective of the study

Specifically, this study embarks on the following objectives:

- a. To determine the available resources and opportunities that can be grabbed to strengthen the functions and usability of EDC-UUM.
- b. To develop a supply chain model for EDC-UUM that will incorporate all the resources and opportunities so that the demand for and the utilization of the training/seminar rooms and hotel rooms can be increased.

2. Literature Review

As stated earlier, supply chain is defined as “a network of facilities and distribution options that performs the functions of these materials into intermediate and finished products, and the distribution of these finished products to customers” [9]. For the purpose of a hotel supply chain, the definition by Joseph L. Cavinato, the director of ISM’s Center for Strategic Supply Leadership and ISM professor of supply management at Thunderbird, The American Graduate School of International Management, perhaps is more appropriate. He defines it as “the appropriate linkage between a supplier, the organization (the hotel), and its customers for maximum benefit” [12].

Supply chain exists externally and internally, thus requiring cross-functional effort, and more importantly, it is multi-tiered in the sense that it spans beyond the organization’s immediate suppliers and customers [11]. However, it is not logical to focus on each tier extensively. In some cases, a fourth-tier supplier might not even be known. However, understanding that the supply chain has multiple tiers, beyond just a supplier and a customer, will help the management know what to focus their efforts and time on while making good decisions that do not negatively affect other tiers.

Any hotel’s supply chain applications should comprise of relationships of the hotel with its suppliers (backward linkage) and tourism/customers intermediaries (forward linkage) [13]. Among the key factors to consider in a hotel supply chain model are financial and non-financial measures, as well as high collaborators and low collaborators [12]. Furthermore, for the non-financial measures, in addition to product flows, all information flows and services must be traced as well [11].

Information is crucial in any hotel’s supply chain. It is used for two purposes namely, in coordinating daily hotel activities related to the functioning of the other drivers in the chain, and in forecasting and planning to anticipate and meet future demands [2]. Other than information, the hotel must also have the ability to meet the dynamic competition that exists in today’s market environment [14]. To remain competitive, the hotel management should place more emphasis on understanding its competencies or capabilities [15].

Prior to 2010, there are limited researches, both empirical and conceptual, which examine the concept of SCM within tourism sector ([16], [17], [18], [19], [20], [21]). [20] for example, reported that there were only 44 TSCM studies prior to 2009 with 66% published in the year 2008 and 2009. Out of those, none focuses on hotel supply chain. Some exceptions perhaps are works by [22] and [23].

[22] proposed information technology tools to enhance one criterion of the SCM – the procurement system, which can support the SCM in hotel management, while [23] suggested some revision to be made to the management of hotels in Portugal that are aligned with the adapted framework of efficiency in their supply chain.

Since then, studies on hotel SCM as well as hotel supply chain have increased somewhat. Some examples are studies by [24], [25], [26], and [27]. [24] provided views on the impact of the strategic purchasing, one of key criteria in the SCM, on hotels; [25] examined the hotel food supply chains in South West England; [26] studied the impact of supply chain management in service delivery on the hotel industry; and [27] established the role of information systems in SCM for five-star hotels in Istanbul.

In the latest development, The Intercontinental Hotel Groups enhanced their supply chain strategy for 2013-2017 by integrating corporate responsibility criteria into the selection and evaluation process for all suppliers and tracking as well as reporting supply chain diversity (<http://www.ihgplc.com/index.asp?pageid=764>).

2.1 Hotel supply chain

In developing a supply chain model for EDC-UUM, [11] suggests the following steps:

Step 1: Defining and understanding the characteristics of the hotel supply chain. This includes knowing the market the hotel serves [2]. Anticipating demand for hotel services is paramount since customers' demand is the catalyst to the supply chain. In the case of EDC-UUM, these demand come in the form of:

- a. Rooms
- b. Training facilities
- c. Restaurant (F& B)
- d. Recreational activities (spa, health centre, jungle trekking, etc.). The recreational venues and facilities belong to UUM and

therefore are not under EDC-UUM's direct management, but since EDC-UUM is a part of UUM, and some users of these recreational activities opt to stay in EDC-UUM, it is appropriate to include these recreational activities as a part of the demand.

Step 2: Mapping the supply chain. This will help EDC-UUM to identify its links and gaps in its services. The map will show, graphically, where the hotel's time and efforts would be best spent.

To map this EDC-UUM's supply chain, we relied on a model suggested by [12] which was later used as a framework for getting started, as suggested by [28].

3. Methodology

Taking into consideration [11]'s suggestion, and with slight modification, we conducted these following steps to develop the supply chain model for EDC-UUM:

Step 1: Gather data

This study began with the determination of some factors that are believed to be the sources of EDC-UUM's superior performance in terms of both financial and non-financial aspects, as well as the high and low contributors in EDC-UUM. This was achieved by conducting the SWOT analysis for EDC-UUM. SWOT analysis can be better achieved through scanning, market research, problem-solving inquiries, or direct experience [29]. Thus, for EDC-UUM's SWOT analysis, we sought information from EDC-UUM's board of directors, some of its loyal customers, and hotel literature. The result of the analyses is given below.

Strengths

- Strong commitment of the General Manager which has a vast experience in hotel management.
- Energetic, highly-motivated, potential and dedicated human capital. In addition EDC-UUM offers attractive compensations, perks and other benefits as most of the staff are appointed under the government scheme compared to those working in independent hotels in the same locality.
- The only budget hotel with premium facilities and services in its locality.

- Accessible to many university indoor and outdoor facilities.
- Worldwide internet booking, convenient counter for walk-in guest and mobile booking (via telephone).
- Ready market from the university population through in-house training, student activities, convocation, university guests.
- Availability of many training experts in various areas.
- Practicum students are always available for hotel use.
- Free high speed wifi connection.
- EDC, although is a training centre, its functions are like those of a well-established hotel.
- Inventory /storage for certain items such as plants is handled by the university nursery.

Weaknesses

- EDC-UUM is bounded to strong bureaucratic controls that tend to eliminate the EDC-UUM's competitiveness.
- Highly dependent on UUM's Registrar and Bursar Office on recruitment process and financial procedures.
- Located at a secluded locality and low occupancy rates compared to industry rates.
- EDC-UUM is patronized mainly by government agencies and internal guests (staff and students of UUM). Insufficient group travelers and corporate guests.
- Difficult to get public transport.
- Most of the management team may have strong base of academic background, but may lack of corporate experiences in hotel management.
- The appointed management from UUM lecturers may have conflicting interest between business opportunities or academic advancement.
- The hotel is backed up by the University. This may promote lack of resilient needed in the growing of a hotel chain, since the challenge to survive is lesser than the independent hotel.

Opportunities

- Situated in the Northern Corridor Economic Region (NCER). Among NCER main trusts is to transform and expand tourism sector in the region.

- Those who patronize EDC-UUM network internationally and locally. Therefore EDC-UUM stands a prospect to obtain large market share through effective marketing strategy and strong management team.
- Strong support from the management of the UUM to the extent of directing all departments to give priority to EDC-UUM as a venue for their functions.
- Cheap labor and service from local community.
- UUM has a School specializing in legal system, thus providing cheaper fees in the legal matters compared to using consultation from private firm.
- The hotel can boost its finances by trying to develop the hotel not only as the accommodation and seminar purposes, but as a hub to many other interactive activities for the locals and outsiders.
- UUM has training experts, training grounds, green campus, large student population, good highway connection, and is close to Thailand as well as a few other universities.

Threats

- Direct and indirect competition from low budget (including guesthouses and lodging), budget and premium hotels in the district.
- Insufficient support from students and alumni.
- Insufficient support from state and local government.
- Bound to government procedure.
- The constant changes in management team.
- The emergence of small hotels in the surrounding area.
- Since most clients are from UUM, late payments, and last minute cancellations happen quite often, leading to loss of opportunity.
- Employability policy - difficult to terminate employees due to government policy

Step 2: Map the supply chain.

This will help EDC-UUM to identify its links and gaps in its services. The map will show, graphically, where the hotel's time and efforts would be best spent. When mapping, it can be useful to ask questions and diagram the answers, as suggested by Anna E. Flynn, Ph.D., C.P.M., vice president as well as associate professor for ISM. Questions may include:

- Who is the final customer?
- Where do products or services end up after each element?
- Who are the major players in each chain?
- Who is paying whom?
- Whom does each member sell to?

Because an organization may end up with an enormous supply chain map if it considers every customer and every supplier, Flynn suggests using an ABC, Pareto, or 80/20 analysis to determine which customers and suppliers to include in the map.

To map this EDC-UUM's supply chain, we relied on a model suggested by [12] which was later used as a framework for getting started, as suggested by [28]. The mapping is as in figure 1. The aspects involved from the perspective of 1: information technology, 2: supplier, and 3: customers are:

- Executive management
- Product development
- Sales and marketing
- Market research
- Account receivable
- Operation
- Account payable
- Supply management
- Finance
- Legal

From Figure 1, it seems that in order to achieve the objective of increasing the demand for hotel facilities, the focus should be given to B: product development, C: sales and marketing, D: market research, F: operation, and H: supply management.

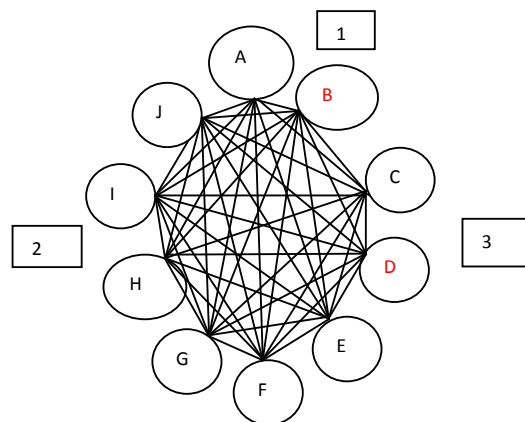


Figure 1: Supply chain model for EDC-UUM (Adopted from Richard Tapper, Environment Business & Development Group, 2003)

Step 3: Develop the specific supply chain model.

Normally, this phase will depend on the type of model that is to be built. It is possible that the model's construction phase will use a number of different approaches. We reviewed some supply chain frameworks such as the Global Supply Chain Forum (GSCF), the American Productivity & Quality Center (APQC), Process Classification Framework (PCF) SM, and the Supply Chain Best Practices Framework. The most significant framework was then be applied for EDC-UUM.

As a result, once again, we followed the suggestion by [12], i.e. a supply chain can be divided into two linkages: supplier-oriented linkages (involving raw materials, information, capital, and expertise) and customer-oriented linkages. The suitable supply chains are given in the next section.

4. Results and Discussion

Now that the focus areas have been identified, we combined the strengths and the opportunities, whenever possible, for the construction of the specific supply chain model. In this paper however, we present only the supply chain model that involves the utilization of cheap labour and experts from the surrounding local community. Specifically, we proposed that these cheap labour and experts to be utilized for the following purposes:

- a. *Resident artists* – unemployed youths can be trained by UUM experts to become resident artists for EDC-UUM. They can be invited to perform during dinner functions or any other functions held at EDC-UUM. The guests will be entertained and given a taste of local culture, performed by local people. In addition, this can certainly reduce the cost of having to invite professional performers.
- b. *Guest cooks* – occasionally, local, amateur but great cooks can be invited to supply their delicacies as part of the food served at EDC-UUM. This will add colour and variety to the menu at EDC-UUM. They of course must be trained by UUM experts from the School of Hospitality and Tourism Management to ensure that the service or the food provided complied with the standards.

- c. *Traditional massage services* – guests can be offered with massage service delivered by traditional masseurs/masseuses upon request. EDC-UUM should keep a list of the available masseurs/masseuses from the nearby area. This is indeed a trend nowadays and being located in a rather secluded location, EDC-UUM's guests will certainly appreciate this massage services.
- d. *Suppliers of food items and raw food materials* – many local people in the community are farmers. They can be trained by UUM experts from the Agricultural Business Department to produce quality fresh raw products and these raw products can be supplied to EDC-UUM. This way, the farmers will have a constant income and EDC-UUM can get fresh raw items cheaper and faster.

Figure 2 in the appendix gives the EDC-UUM supply chain links.

5. Conclusion

The EDC-UUM supply chain comprises of all goods and services that go into the delivery of EDC-UUM products to consumers. It includes all suppliers of goods and services whether or not they are directly contracted by EDC-UUM or its agents. It also involves many components including accommodation, transport and excursions, food and restaurants, souvenirs, and the infrastructure that supports EDC-UUM.

In this paper, we illustrated only the supply chain links that involve services that can be enhanced and new services that can be introduced through the utilization of the available local community. Four ways on how the local community members can be utilized are illustrated. They are unemployed and talented youths to be trained to be resident artists, amateur cooks to be invited as guest cooks, traditional masseurs/masseuses to provide the massage service for the hotel guests, and the local farmers to provide raw food materials.

The next action is for the EDC-UUM management to form a working committee to plan and properly execute the suggestions. The plan will include among others the coordination between the quality controllers, the suppliers and the service provider, as well as the marketing strategy to alert potential customers on the new features that the

EDC-UUM are offering. Perhaps, if EDC-UUM is not ready to implement all of the suggestions at one go, the management must prioritize their action plan.

Acknowledgments

The authors would like to thank Universiti Utara Malaysia for sponsoring this research.

References

- [1] Russell, S. R. and Taylor, W. B. *Operations Management: Quality and Competitiveness in a Global Environment (5th Edition)*. New Jersey: John Wiley & Sons, Inc., 2006.
- [2] Hugos, M. *Essentials of Supply Chain Management*. Hoboken, New Jersey: John Wiley & Sons, inc., 2003.
- [3] Council of Supply Chain Management Professionals (CSCMP). (2011). Logistics Management, <http://cscmp.org/aboutcscmp/definitions.asp> accessed on 1 August 2013
- [4] Gartner IT Glossary, <http://www.gartner.com/it-glossary/supply-chain-management-scm/>, accessed on 2 August 2013.
- [5] Harland, C.M. *Supply chain management relationships, chains and networks*. British Journal of Management, 7 (special edition), pp. 63-80, 1996.
- [6] Hines, T. *Supply Chain Strategies: Customer Driven and Customer Focused*. Oxford: Elsevier, 2004.
- [7] Lambert, D. M. *Supply Chain Management: Processes, Partnerships, Performance, 3rd edition*. Florida: Supply Chain Management Institute, 2008.
- [8] Lambert, D.M., Stock, J. R. and Ellram, L.M. *Fundamentals of Logistics Management*. Boston, MA: Irwin/McGraw-Hill, 1998.
- [9] Ganeshan, R. and Harrison, T.P. An introduction to supply chain management, http://mason.wm.edu/faculty/ganeshan_r/documents/intro_supply_chain.pdf, accessed on 3 March 2013.
- [10] Chopra, S. and Meindl, P. *Supply Chain Management: Strategy, Planning, and Operations*. Upper Saddle River, NJ: Prentice-Hall, 2001.
- [11] Roberts, J. S. *The buzz about supply chain*, Inside Supply Management, 14(7), pp.24 – 27, 2003.
- [12] Kotler, P. and Armstrong G. *Marketing*. Singapore: Prentice Hall, 2006.
- [13] Ozturen, A. and Sevil, G. *Supply chain management as a sustainable performance booster for the accommodation enterprise: evidence from North Cyprus Tourism Sector*, International Journal of Business and Management, 4(2), online version, 2009.
- [14] Prahalad, C.K. and Hamel, G. *The core competence of the corporation*, Harvard Business Review, 68(3), pp. 79-91, 1990.
- [15] Hamel, G. and Prahalad, C.K. *Competing for the Future*, Boston: Harvard Business School Press, 1994.
- [16] Muchina, S. and Popovici, V. *Logistics and supply chain management in tourism*, Amfiteatru Economic, pp. 122-132, 2008.
- [17] Kozak, N., Uysal, M. and Birkan, I. *An analysis of cities based on tourism supply and climatic condition in Turkey*, Tourism Geographies, 10(1), pp. 81-97, 2008.
- [18] Zhang, X., Song, H. and Huang, G.Q. *Tourism supply chain management: A new research agenda*, Tourism Management, 30(3), pp. 278-287, 2009.
- [19] Simon, V. and Roy, J. *Global service supply chains: an empirical study of current practices and challenges of a Cruise Line Corporation*. Tourism Management, 30, pp. 128-139, 2009.
- [20] Piboonrunroj, P. and Disney, S.M. *Tourism supply chains: a conceptual framework*, PhD Network Conference, Nottingham, UK., pp. 132-149, 1-3 July 2009.
- [21] Rusko, R.P., Kylanen, M. and Saari, R. *Supply chain in tourism destinations: the case of Levi Resort in Finnish Lapland*, International Journal of Tourism Research, 11(1), pp. 71-87, 2009.
- [22] Kothari, T., Hu, C., and Roehl, W. S. *E-procurement: an emerging tool for the hotel supply chain management*, International Journal of Hospitality Management, 24(3), pp. 369-389, 2005.
- [23] Barros, C. P., and Mascarenhas, M. J. *Technical and allocative efficiency in a chain of small hotel*,. International Journal of Hospitality Management, 24(3), pp. 415-436, 2005.
- [24] Fantazy, K. A., Kumar, V., and Kumar, U. *Supply management practices and performance in the Canadian hospitality*

industry, *International Journal of Hospitality Management*, 29(4), pp. 685-693, 2010.

- [25] Akkarangoon S. *Supply Chain Management Practices in the Hotel Industry: an Examination of Hotel Food supply Chains in South West England*, Doctoral Dissertation, University of Exeter, 2010.
- [26] Odoom, C. K. *Logistics and Supply Chain Management in the Hotel Industry: Impact on Hotel Performance in Service Delivery*. Master's Thesis, University of Nevada, Las Vegas, 2012.

- [27] Kaya, E. and Azaltun, M. *Role of information systems in supply chain management and its application of five-star hotels in Istanbul*, *Journal of Hospitality and Tourism Technology*, 3(2), pp.138-146, 2012.
- [28] Cavinato, J.L., Flynn, A.E. and Kauffman, R.G. *The Supply Management Handbook, Seventh Edition*, United States: The McGraw-Hill Companies, 2006.
- [29] Day, G.S. *The capabilities of market-driven organizations*, *Journal of Marketing*, 58, pp. 37-52, 1994.
- [30] Corporate Responsibility Criteria, <http://www.ihgplc.com/index.asp?pageid=764>, accessed on 12 June 2013.

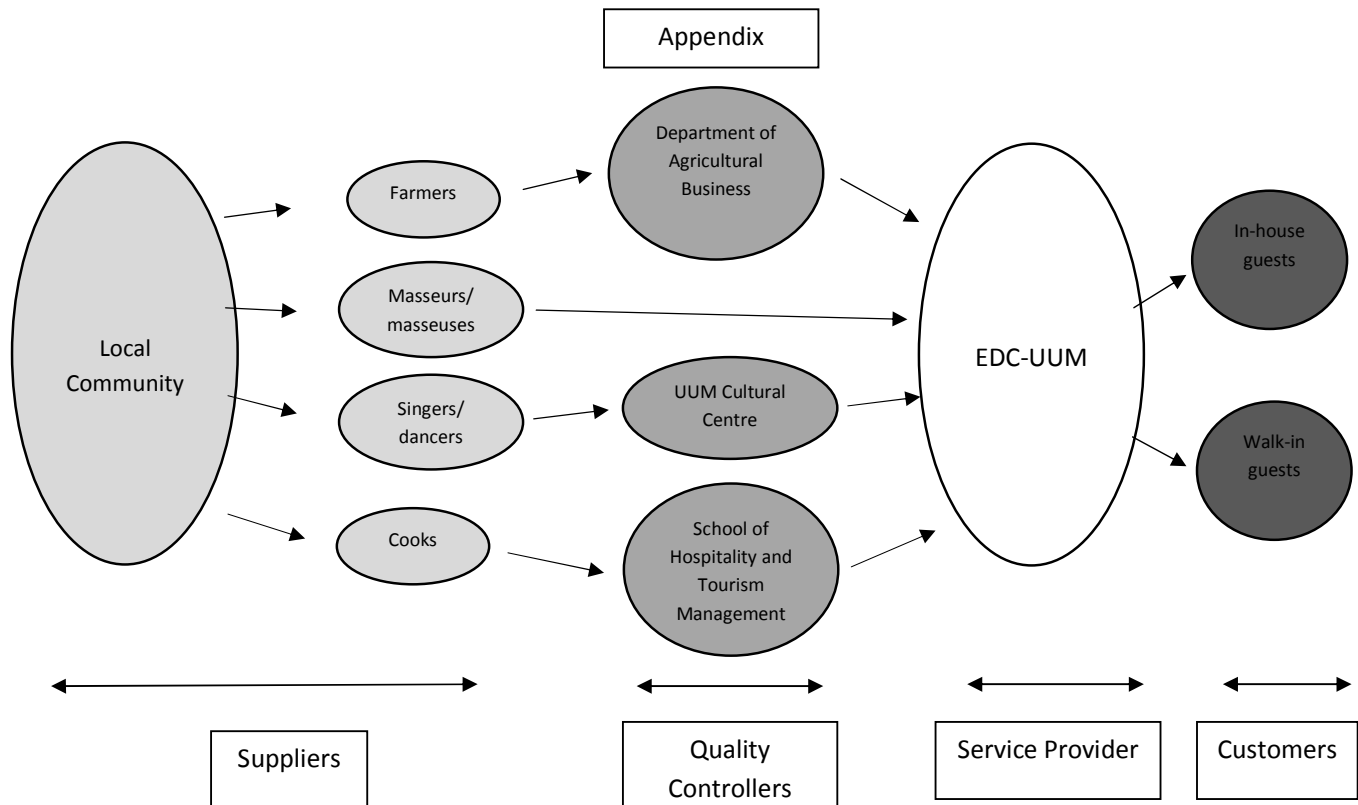


Figure 2: Supply chain links for EDC-UUM involving the utilization of local community members