

Productivity in Public Sector Services: Results of a Systematic Literature Review

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Abstract

Increasing productivity is the aim of many common industries in the public and private sectors. Although many productivity publications can be found in manufacturing, construction, and services, few studies are found dealing with productivity in public services. This study aims to review the recent literature published about productivity in public services. The methodology adopted in this paper is a systematic literature review. A total of one hundred papers were identified as a result of searching for specific relevant keywords. Different types of analysis were used to classify the papers, find the development and trend of research, and finally identify the research gaps. The main findings of the study showed that the research in productivity in public sector services focuses on five areas: human resources aspects, technology development, re-engineering processes, strategic management development, and economic perspectives. It was clearly noticed that strategic management development and re-engineering processes need further studies and research.

Keywords

Productivity, Public Sector, Services.

1. Introduction

Many excellence models, both in public and private sectors, have been developed and adopted by organizations to improve the performance. According to Sampaio et al. (2012), Deming Prize in Japan, the Malcom Baldrige National Quality Awards (MBNQA) in the USA, and the European Foundation for Quality Management (EFQM) in Europe are the most popular excellence models that are used by private sector. However, governments in various countries have adopted these excellence models as a base to improve the performance of their public sector. For example, the United Arab Emirates (UAE) launched an excellence model in 2015 named the 4th generation excellence model which is dedicated to the public sector.

Government services play a vital role in the country's economics besides providing essential facilities to the people living in communities. Government services have a direct impact on other industries, like construction, manufacture, and private services. Improving government services become an essential topic to the leaders of countries, and accordingly, most strategic plans focus on improving the government services to enhance the quality of living. Improving government services will lead to talking about productivity and factors affecting the efficiency and effectiveness of the services. Although many productivity publications can be found in manufacturing, construction, and services, fewer studies are found dealing with public services. According to a report that was published in Albayan newspaper on the 22th of May 2019, The actual productive hours is estimated as three hours out of the eight working hours, which is indicates that the productivity is very low (Mustafa, 2019). Therefore, this study aims to review the recent literature published about productivity in public services. The review will analyze the trend and distribution of the literature that cover the general aspects of productivity. It will investigate and classify the literature that influence productivity. It focuses on theoretical development and empirical studies of productivity in general and narrowed down to productivity in the public sector with focus on productivity in services. The study tries to explore the implication of productivity in different types of organizations, addresses complexity issues, and visualize the trend of the last ten years. The ultimate goal is to identify the gaps and potential areas that need further research.

The organization of this research paper is as follows: Section II gives a brief overview of the methodology used in the study. Section III presents samples of similar relevant review papers. Section IV gives the findings of the literature review, and finally, Section V presents the conclusion.

2. Methodology

This paper is a systematic review of the literature on productivity with relevance to public sector services. The research tries to classify the literature published in the most well-known scientific databases, in the last ten years, using popular search engines. The research was conducted during the duration between 1-2-2019 till 1-9-2019 and targeted different databases like google scholars, IEEE, Wiley online, Oxford Academic, ProQuest ABI, Science Direct, Sharjah university research engine. Research Gate, Scopus, and ASCE. The research started with general keywords search such as Productivity, Public Sector, Private Sector, Construction, Manufacture, Services. Then, more specific keywords were used such as ministry, government, federal, municipality, services, construction, labor, worker, employee, craftsman, supply chain, processes, re-engineering, and business process management. The systematic literature review approach enables researchers to cover and study articles in a better way by systematically presenting previous work. The classification of articles will present attributes of study such as measurement techniques used, models, equipment used, present problems, and discuss lessons learned. The aim is to explore review papers that can meet the same line of the study and try to find the best combinations of categorization aspects.

3. Relevant Review Papers

The results of the literature review showed that several previous review papers had been published. For example, Dixit et al. (2019) had an attempt to summarize the evolution of research in construction productivity using a systematic literature review. The article classified papers years-wise to see the rate of development and classified the journals based on industrial sectors to measure the importance of the topic versus the sector (Dixit et al. ,2019). Gupta et al. (2019) tried to classify the number of recurrences of productivity topic versus classification of the journals selected. Gupta et al. (2019) also classified the distribution of the publications based on the continent. Dixit et al. (2019) studied the factors and attributes affecting productivity and ranked them based on their severity by using relative important index values. Gupta et al. (2019) used the systematic literature review and grouped the papers based on research methods aiming to find the most common research method in research of productivity. Laihonon et al. (2012) classified literature based on challenges and understanding the factors affecting productivity of knowledge work. Narbón-Perpiñá and De Witte (2018) presented a systematic literature review on local government efficiency from economic perspective and classified the literature based on methodologies, input and output.

Golini et al. (2016) used systematic literature review on construction industry productivity by classifying the multidisciplinary characteristics of supply chain management. Eisma and Volker (2014) tried to analyze the systematic literature review by using network analysis. Balci et al. (2011) developed a research agenda on the productivity of services after classifying leading journals. Maestrini et al. (2017) carried a systematic literature review using cross-disciplinary approach to examine journal that belongs to different scientific domain.

4. Findings of Systematic Literature Review

In the following we present the main findings of the study.

4.1. Trend of Productivity studies

The result shown in “Figure 1”, indicates that the trend in studying productivity in the public sector is much higher than productivity in the private sector. The trend also indicates that studying productivity in services in the public sector in construction is higher than productivity studies in the private sector in manufacture.

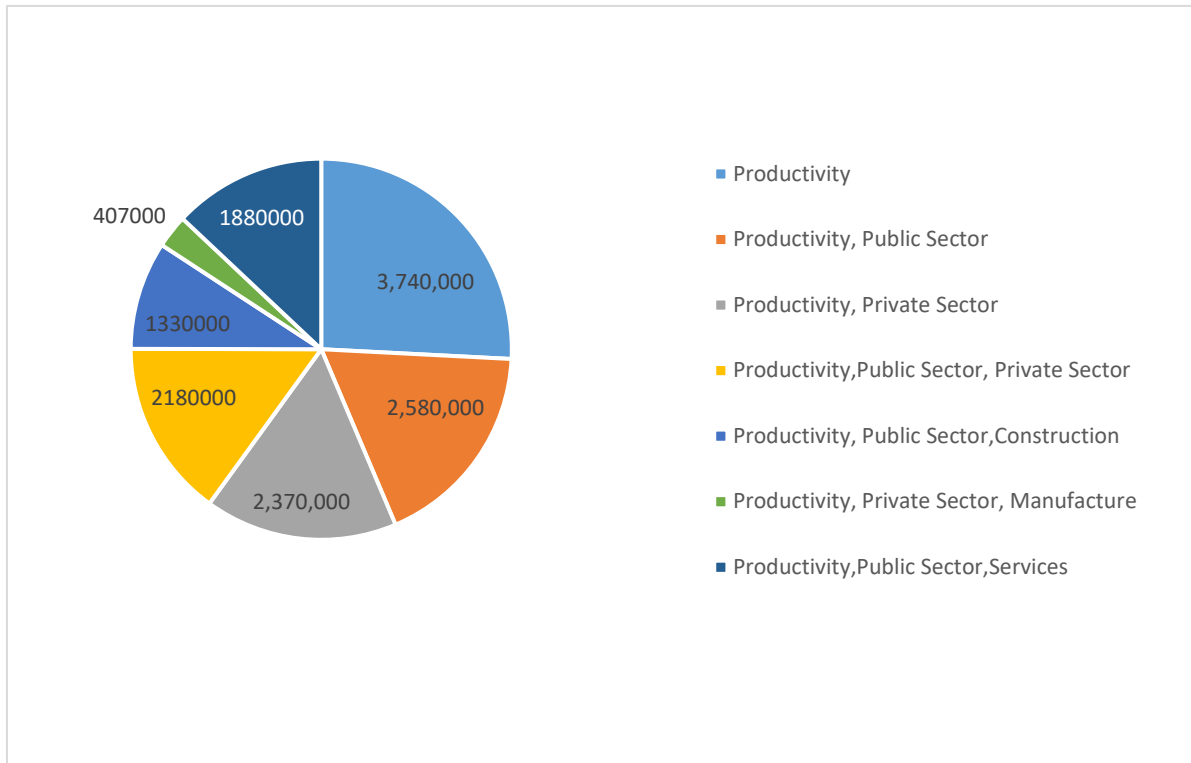


Figure 1 Google (Wording vs. Count)

4.2. The Number of Productivity Publications Over Time

The papers found have been classified according to the year of publication. “Figure 2” shows that the productivity topic had great interest to scholars, and accordingly, a high rate of academic publications is noticed in that field.

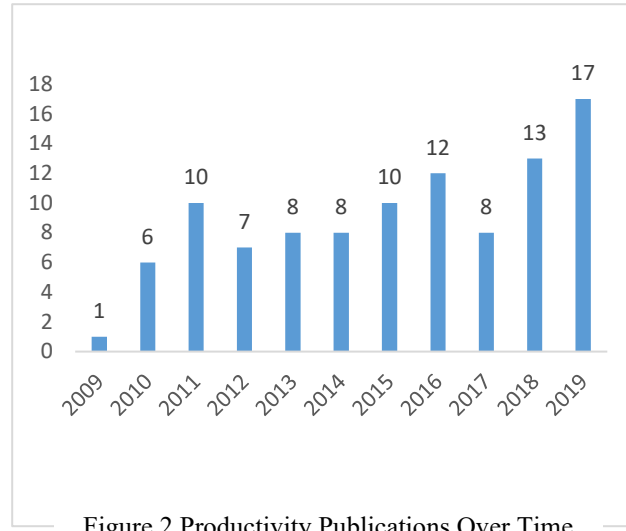


Figure 2 Productivity Publications Over Time

4.3. Classification of The Methodology Used

Methodologies have been classified to stand on the most used approaches by scholars. The results show that the quantitative methodology was the most used, as shown in “Figure 3”.

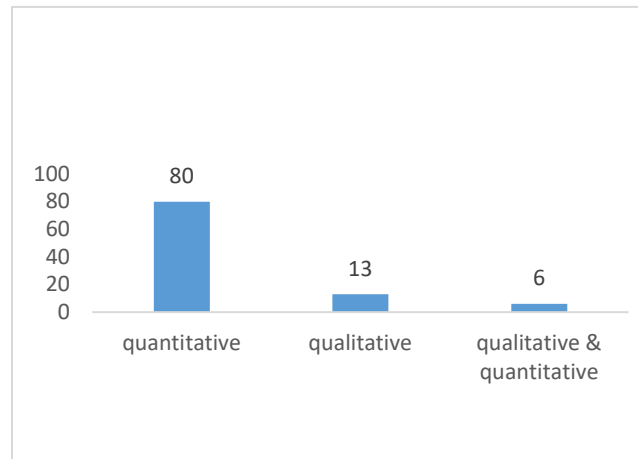


Figure 3 Methodology Used in Productivity studies

4.4. Data Sources

Data sources are categorized into main five types, which are data banks, surveys, interviews, case studies, and observations. As shown in “Figure 4”, the most commonly used sources that are used by scholars are data banks, surveys, and interviews, respectively.

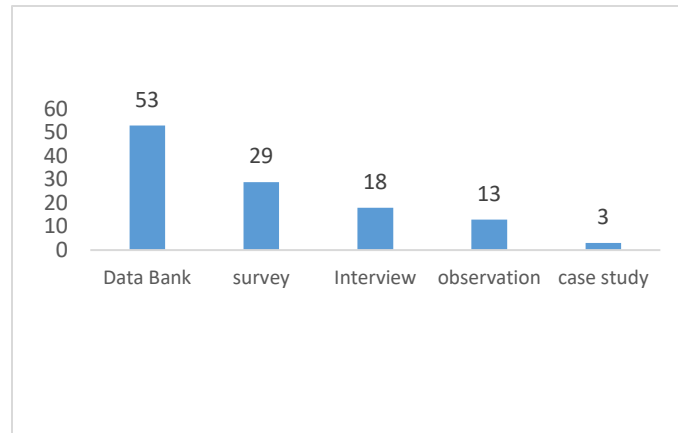


Figure 4 Data
Productivity

Sources Used in
Studies

4.5. Level of Study

It was found that scholars attempt to study productivity in three levels, which are labor, system, and macro-economic, see “Figure 5”.

Labor level can be described as factors that affect productivity directly with issues with labor in day to day activity and on working space like handling process, brake times, absenteeism, skills. On the other hand, the system level can be described as factors that affect productivity on issues that top management responsible for improving it like policy, regulation, innovation, communication, human resources management. Finally, Macro-economic can be described as factors that affect overall labor productivity from a country perspective and compared it to gross domestic products. Most of the studies found from the search focus on the system level.

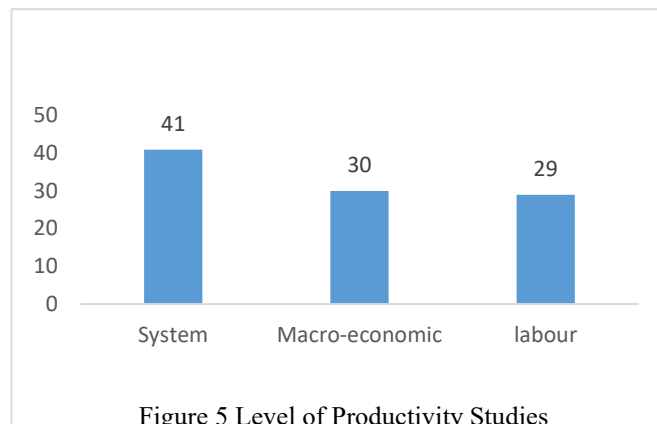
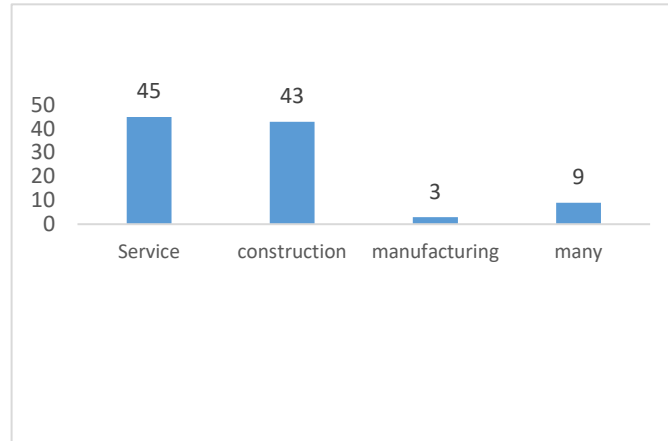


Figure 5 Level of Productivity Studies

4.6. Productivity Publications by Sector

Regarding the sector that has more productivity publications. From the categorization of the papers found in each sector. The result shows that service and construction have the almost same level of paper attempt, as depicted in “Figure 6”.



4.7. Count by

In this study, the Figure 6 Productivity Publications by Sector engines were used for

American Society of civil engineering (ASCE), ProQuest, Research Gate, Sage, Google Scholar, ScienceDirect, Sharjah university and Wiley. Accordingly, as shown in “Figure 7” ASCE has the highest number of publications.

Search Engine

following search systematic review:

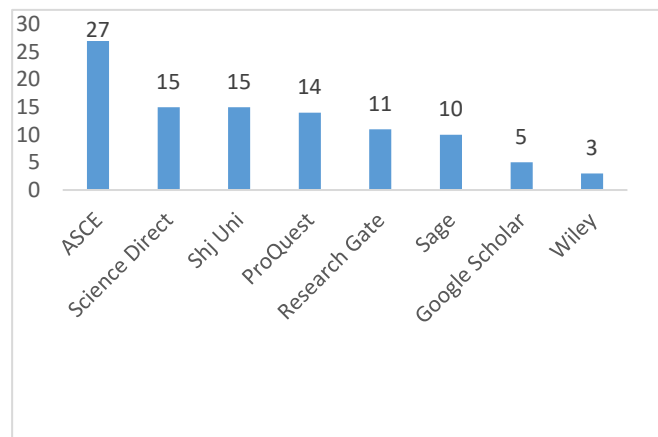


Figure 7 Productivity publications by Search Engine

4.8. Count by Continent

Regarding country categorization, another interesting categorization can be to show the number of productivity publications by the continent. “Figure 8” shows that Asia's countries had the highest contribution of papers published.

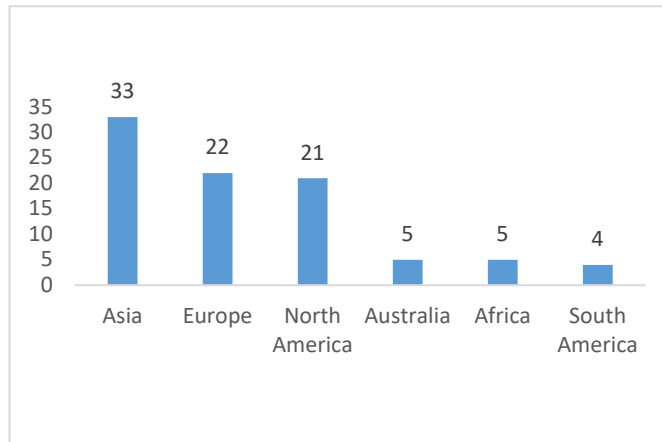


Figure 8 Productivity Publications by Continent

4.9. Count by Country

The USA shows way high rank among other countries in publishing papers in productivity, see “Figure 9”.

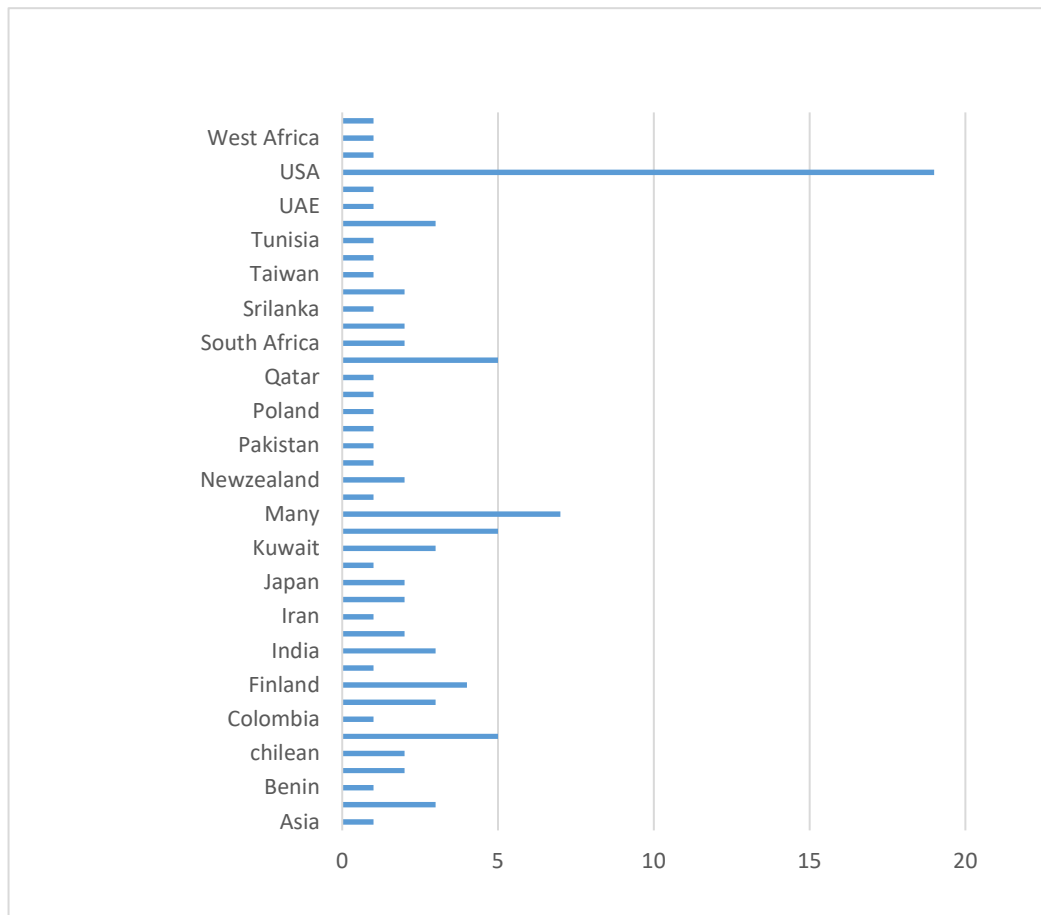


Figure 9 Productivity publications by country

4.10. Data Analysis Approach

“Figure10” shows that the most three used data analysis approaches are ordinary least square, data envelope analysis, and Cobb-Douglass function.

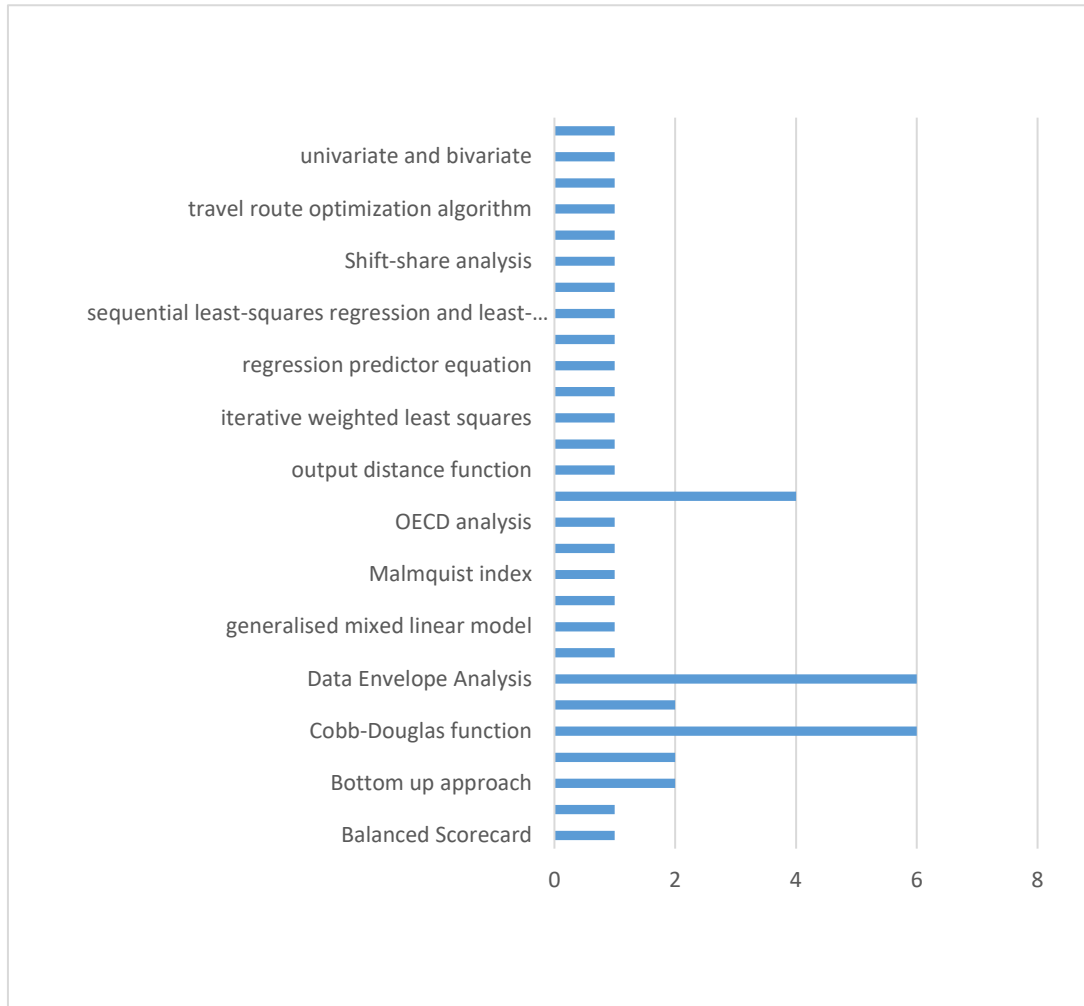


Figure 10 Data Analysis Approach Used with Productivity Studies

5. Conclusion

One of the objectives of a systematic literature review is to detect the trend of scholars and researches on a specific topic. The resulted classification showed the area that literature had focused on issues that influences productivity in public sectors services. It also uncovers the gaps in literature where new studies can be implemented. It is clear that the productivity studies were covering the following five areas which are: Human resources aspects, using technology, Re-engineering processes, strategic management development, and economic perspectives. It is noticed that the areas that need further studies are strategic management development and re-engineering processes. It was also noticed that the highest focus of the literature is on human resources development and technology.

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Biography

Khalifa al-Suwaidi is an Assistant Director General of Sharjah Municipality Engineering and Building Sector. He has about 16 years Government and Private Sector experience in Engineering Management and Project Management. He earned B.S. in Civil Engineering from American University of Sharjah,UAE. He earned Executive Master of Business Administration from Sharjah University, UAE. Currently He is currently pursuing a Ph.D in engineering management from Sharjah University, UAE.

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