
SOCIO-ECONOMIC COST ACCOUNTING: A LITERATURE REVIEW

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Abstract

This study provides a survey of several recent studies which have focused on socio-economic costs and dealt with the uses of socio-economic cost accounting. The results of the survey showed that accountants have encountered difficulties and challenges in the emerging field of socio-economics cost accounting. In particular, the issue of recording potential future obligations as a result of the damage that entities will cause to society. There is a persistent need to clarify different accounting methods which are made for tackling the negative effects on others because of entities practicing their economic activities, along with attaining social and economic welfare. Future studies examined in this study agreed that socio-economic accounting needs a new conceptual framework that satisfy the needs of all categories of users of financial statements. It must be extrapolated by focusing on the social effects of conditions, the economic reality and technical accounting procedures. The objectives of accounting for socio-economic costs were also embodied in applied studies, through methods of calculating socio-economic costs, monitoring, and evaluating the socio-economic performance of entities.

Keywords: Socio-Economic, Cost Accounting, Welfare, Financial Statements and Economic Activities.

Introduction

The rise of the environmental awareness movement and the evolving approaches of social and economic research in the sixties and seventies of the 20th century had many impacts on accounting, as the social approach is considered an ethical approach, because it focuses on the broader concept of Fairness i.e., social welfare which it represented in its demand for the necessity of considering social costs and benefits within private activities of entities, the economic approach also focuses on general economic welfare, through monitoring

macroeconomic indicators that are generated by adopting various technical accounting methods and procedures that reflect the economic reality. Therefore, these factors contributed to the emergence of a new accounting subfield called socio-economic accounting. Its goal is to encourage entities to consider the impact of the private sector's productive activities on the social environment by measuring the negative and positive impacts of these activities, considering them as part of their internal accounting concerns, and disclosing them in their financial statements.

Challenges and Considerations for Socio-Economic Cost Accounting

The process of distinguishing between social costs and economic costs is considered one of the most important challenges facing socio-economic cost accounting. There is a fine line between social activities and economic activities. For that reason, practitioners must take caution in the process of classifying these costs to cost centres or beneficiary projects. In particular, the costs of research and development, which today represent a large percentage of the cost of products, sometimes we can calculate it, as a social cost, in order to create value represented by customer satisfaction with the company's products, and sometimes we can consider it, as an economic cost, necessary for the factor of competitive advantage and increasing the company's market share of sales of its products in an effort to increase its net profits and increase the market value of its shares. It is also probable to measure the cost of professional and evaluate the training courses to develop the skills of workers and employees borne by corporate entities as a (social cost) to help them obtain their right to promotion or advancement and to build a spirit of belonging and loyalty to the company. Likewise, it can be considered an (economic cost) necessary to develop Employees and improve their performance, which is reflected in the quality of products and increased productivity. In addition, many problems appear in empirical reality at the level of measurement and disclosure, an example of which is how to measure cost versus benefit, and the problem of determining social standards also appears.

The Emergence Socio-Economic Accounting

The notion of socio-economic accounting dates back to the early seventies of 20th century. In this vein, writers were very much engrossed with trying to define and describe the concept of socio-economic accounting and its vision. Such attempt did not introduce a reasonable and prudent definition of the field of socio-economic accounting. However, the definition provided by Linowes remains a distinctive mark in accounting literature, when he defined it as "the application of accounting in the field of social sciences" (Linowes, 1968).

Mobley contends that the notion of socio-economic accounting refers to "arranging, measuring, and analysing the social and economic consequences of government behaviour and entrepreneurship" (Mobley, 1970). Mobley introduced a comprehensive and deep understudying vis-à-vis socio-economic accounting, as it includes traditional accounting that focuses its attention on the financial, economic, and administrative consequences. Besides, Mobley's definition includes socio-economic accounting, which includes economic and social consequences that were not highlighted before. Mobley also presented dimensions of socio-economic accounting that relate to national income, its role in evaluating social

programs and economic development, and the tireless efforts towards finding measures of economic and social prosperity. Another study conducted by Estes (1972) investigates one of the dimensions of socio-economic accounting by identifying how to determine and measure socio-economic costs. Estes focused on the concept of economic welfare and linked it to the concept of external imbalances that Pigou came up with, which occur due to the difference between social and private net output (Estes, 1972).

External imbalances are the negative effects that others are exposed to because of entities carrying out their economic activities without these entities recognizing the costs of harm to others, in addition to not compensating them for the harm they cause to them. To prevent external imbalances, many proposals emerged at that time, the most important of which will be discussed in the following points. First: Wellisz's proposal (1964), which calls for Economists designed a tax system based on the system (Pigou, 1960) and the benefit of imposing a tax either on the element that causes harm to others (our example is the fumes that are emitted from factories) or a tax is imposed on low quality raw materials that represent the inputs that cause those harmful pollutants in Burning process. Second: Mishan's proposal (1970), which is to force those who cause disturbances in the amenities systems to pay compensation to the people who suffer from those effects. This proposal was partially successful when taxes were imposed on vehicle driving licenses, as well as a tax on automobile petrol, and these amounts were used in modernizing and developing highways. As well as using the amounts collected from visitors to public parks to repair damage caused by visitors. Fourth: The acceptability of the Pigou system is evident in the proposal of the Council of Economic Advisors report of 1966, which stated that one of the desirable ways to limit waste discharge is to impose fees on the polluter according to the damage resulting from its pollutants (Estes, 1972). Wellisz's and Mishan's proposals along with the Pigou system help prevent external imbalances as a main dimension of the field of socio-economic accounting.

Furthermore, Kenneth Most argues that socio-economic accounting results from the view that a new conceptual framework is required to replace the accounting methods characteristic of capitalist society (Most, 1977). Most's argument is based on the idea that financial reports at that time were prepared to serve specific categories of users, and as far as this study is concerned, Most meant investors and creditors, while at that time the idea of social welfare for all groups of society began to appear, so the demand began for the necessity of Financial reports include information about employee satisfaction, their needs, and justice against consumer groups. Therefore, the entities responsible for preparing financial reports are meant to serve all concerned parties and not one group at the expense of other groups. This opinion is consistent with what was stated by the social approach, which determined the matter of formulating the accounting theory, which must be based on the social influences of the conditions and technical accounting procedures.

Therefore, some critics of socio-economic accounting consider the social approach to be an ethical one simply because it focuses on the broader concept of Fairness, which is social welfare. Based on the principals of social approach: Any accounting principle or accounting technical method is evaluated (for its acceptance) considering its reporting effects on all parties in society. However, this idea has encountered a specific issue, namely how to

disclose in the financial reports at that time the internal social role that the company must provide, which is represented by the humanitarian aspect, such as providing internal working conditions for employees that achieve their satisfaction and professional safety, eliminating racial discrimination, and their participation in the decision-making process, and it was also focused on The problem is how to disclose the external social role of the company, represented by protecting the environment and its natural resources, which are characterized by scarcity and gradual decline, as well as providing preventive services to the public from the negative effects of companies practicing their main economic activity.

To synthesize the discussion of the above-mentioned studies, we believe that the evolution of socio-economic accounting was accompanied by the emergence of an important environmental movement, concerned with the social and economic responsibility of the state and organizations and companies. The movement's success in drawing public opinion's attention to the growing concern about what it causes. Entities cause economic and social harm to society. This environmental awareness movement also had remarkable impacts on accounting, which are, firstly: requiring accountants to evaluate social costs and including them in their financial reports, and secondly: explaining the mechanism for treating pollutant costs and compensation costs and how to report them. Our example of this is how the cost of equipment for treating or removing damages, such as devices, will be dealt with air purification in cement factories, as well as the destruction of heavy equipment for waste recycling and other specialized equipment that is characterized by high cost, and its effects on return on investment and stock prices. One of the most important challenges facing accounting at that time was recording potential future obligations because of the harm that entities would cause to society.

Socio-Economic Accounting in the 1980s

The period of the end of the seventies and the beginning of the eighties did not witness the same momentum of studies on the field of the socio-economic accounting in comparison with the early seventies of 20th century, and if some studies existed, they lacked a theoretical framework to justify the effects of reporting on investor decision-making (Dyckman, et al., 1987). But we believe that Belkaoui's study (1980) is noteworthy during the 1980s, as he conducted an empirical study to examine whether the investor's decision would differ if the user had additional information about socio-economic accounting. The results of the experiment showed that socio-economic information is relevant. It is of great importance considering the investment strategy, and therefore the informational content of socio-economic accounting must be emphasized.

Socio-Economic Accounting, 1990s - Present

The 1990s period witnessed a return to the prosperity of the environmental movement, as important environmental regulations were dissected, due to pressure on entities and forcing them to acknowledge their responsibility for the environment, represented by displaying the costs of damage and the socio-economic benefits in their financial statements. This period witnessed interest in economic and social prosperity on the part of governments and professional associations, and a lull on the institutional and academic side (Purser, et al.,

1995). Moreover, the sensitivities of measurement and the complexity of the reporting frameworks has went far beyond beyond the progress achieved in the 1970s (Epstein, 2004; Al Anssari, M. A. 2022; Alshawi, E. J., Al-Tamimi, S. A., Anssari, M. A. A., & Hanoon, M. F. 2023).

Among other the studies that have shed extensive light on socio-economic cost accounting Han, et al., (2021) which explored how far citizens diagnosed with dementia benefit from the long-term care services and the consistent support of health care.

The 2016 financial statements of two national insurance companies were used, according to which people diagnosed with area were ordered to 6 different sets based entirely on the long-term care services used along with a consistent health care.

Long-term care insurance users with home and community-based services	93,346\$
Nursing home services	69895
Shared services	16,068
Long-term care insurance for non-users cared for by family at home	192,713
Who live alone	19,526
Those permitted to long-term care clinics	65,976

Socio-economic costs were classified into indirect and direct costs. The total socio-economic cost of what is so called area was anticipated at \$10.9 billion for 457,524 members in 2016. An approach (Kang et al. 2005; Al Anssari, 2023) is mean for classifying the socio-economic costs of dementia that considers productivity loss for caregivers was used in these estimates. For estimating the social and economic costs of dementia, the table below presents the required definitions, key elements and above all data sources, which are used to determine the cost of every element. These kinds of costs are principally comprised indirect direct and costs. The items and/or elements include non-medical along with direct medical costs i.e. the direct costs. The notion of direct medical costs indicates different expenses on healthcare services. Medications, outpatient visits and hospitalization. Those kinds of costs are being covered and paid by the National Institute of Health and the patient. On the contrary, direct non-medical costs also refer to expenses on community and home care services along with care and/or medical services targeted for elderly people. Penetrating to items which make up indirect costs, there are two items. The first is general indirect costs, which are expenses spent on transportation related to health care, food, diapers (used for adults), and paid care workers and loss of productivity for family caregivers. Productivity loss for caregivers was defined as loss of income because of a noticeable absence from workplace due to caring for a family member who is being diagnosed with Alzheimer's disease. Researchers relied upon certain data chosen carefully from the Family Care Survey so as to measure indirect overhead costs.

Area	Item		Definition	Data-Sources
Direct Costs	Medical costs - NHI payment	- Insurer payment - Patient payment	Annual medical costs paid by NHI (hospitalization, outpatient visit, and medication) patient (hospitalization, outpatient visit, and medication)	NHI database Survey of Family Caregiving
	Non-medical costs - LTC payment	Insurer payment - Patient payment	Annual LTC costs paid by LTCI (nursing home service, home care service, or both services) paid by a patient (nursing home service, home care service, or both services) Annual LTC costs	LTCI database Survey of Family Caregiving

Area	Item		Definition	Data-Sources
Indirect Costs	General indirect costs	Transportation	costs Annual expenditures on transportation for hospital or outpatient visits and LTC service use of a patient with dementia	Survey of Family Caregiving
		Food costs	Annual expenditures on food consumed by a patient with dementia.	
Diaper costs		Annual expenditures on diapers used by a patient with dementia.		
Care-worker costs		Annual expenditures on paid care workers to take care of a patient with dementia.		
	Productive loss (or income loss) 1	Caregiver income loss	Caregiver's income loss related to a leave of absence from work to take a patient to hospitals or other medical centres	NHI database Survey of Family Caregiving

A study developed by Han, et al. (2021) reflects a widespread resonance of the objectives of socio-economic cost accounting. More specifically, calculating the socio-economic costs and monitoring and evaluating social performance. Notably, Han, et al. reach the conclusion that the total socio-economic costs for the year 2016 were 457, 524 people with dementia, amounting to 10.9 billion US dollars, as direct costs amounted to \$6.2 billion, meaning 56.7%, and indirect costs were \$4.7 billion, meaning 43%. That is, the annual socio-economic cost per person is \$24,000. The direct annual socio-economic cost per capita was \$13,500, and the annual indirect socio-economic cost per capita was \$10,500. Regarding the comparison of the annual social-economic cost per capita, it was \$20,000 and \$24,000 for the years 2015 and 2016 respectively. Some explain this kind of increase by means of the cost: The increase in the number of beneficiaries along with the increase in the percentage of people who are being diagnosed with dementia, the number of people with, which has

increased according to the number of elderly people, the increase in early screening of dementia and the rise of people's awareness and understanding of dementia. The overall results of the study have supported the socio-economic benefits.

Interestingly enough, the social security system in Korea is linked to two pioneering national insurance companies. As a matter of fact, such kind of link helps decrease the very financial burden of caring for these particular individuals. More accurately, community and home services offered by the Korean medical system is the less expensive care amongst the six groups of people being diagnosed with dementia. By comparing the results of Han's, et al., (2021) study with a similar sort of study which conducted exclusively in Japan, where recipients in Japan who actually employed community and/or home services. Namely, rental of assistive devices and respite care services have encountered less hospitalization and institutionalisation rather than those who did not (Tomita et al, 2010; Anssari, 2023).

Furthermore, Boulanger, et al. (2017) have made extensive research in France which assessed the socio-economic costs of what is so called indoor air pollution, i.e., carbon monoxide, fine particulate matter, and several other toxins. In big developing cities such as France, the issue of air pollution in buildings and homes will contribute to developing suitable public policies in this regard. Such assessment, however, was conducted for six selected pollutants: ethylene, trichloride, benzene, carbon monoxide, chloride, radon, and smoke that results from the scorching of a tobacco. In this regard, two approaches have been adopted by means of relying entirely on the data obtained. First the application of the quantitative risk evaluation as a systematic and of course formal approach. Whereas, health impact assessment is the second practical approach, which is wholly utilised to judge the possible health impacts on a given population. Internal concentrations toxicological data, for every target pollutant, were completely used in the above-mentioned two approaches.

Economically speaking, the researchers found that implications of indoor air pollution on health and long-term wellbeing are negative and rise man's burden of diseases. For that reason, the impact of indoor air pollution, social and economic, are recognised as the monetary value of the undesirable costs of home and buildings pollution. That is to say, the number of capitals that society has lost due to exposure to different concentrations of pollution, which eventually led to noncontagious diseases. Given the fact that the aim of such study lies in assessing the economic and of course social costs to society comprising public finances, private costs reinforced by none-governmental firms and several individuals were not actually measured. (Single, et al. 2003; Anssari, M. A. A., & Al-Tamimi, S. A. 2023). Economic costs of indoor air pollutants are classified into two main types, internal and external costs. The function of the external costs lies in measuring the potential cost of the distributed resources, which entirely results from existence of indoor air pollution. What is meant, in this connection, is the opportunity cost based on premature deaths caused by air pollution, as society is deprived of the productivity of a person who dies before the age of death rate, loss of quality of life (disease) and loss of production means that there are those who remain alive but cannot produce, and the second is the effects on public finances resulting particularly from the presence of air contaminants inside structures and buildings.

Summary

The study has shed a heavy light on the current trends and issues incorporated by critics and schoolers of the field of socio-economic accounting, on which the environmental awareness movement and the social and economic approaches had numerous impacts. The aim of which was revolved around encouraging entities to mind the huge impact of the private sector's productive activities on the social environment by measuring the negative and positive impacts of these activities and considering them as part and percale of its internal accounting concerns and disclosing them in its financial statements. One of the most important challenges facing the preparers of social reports is how to solve the difficulties of the process of distinction of social costs from economic costs, we believe that there is a fine line between social activities and economic activities. In addition, many problems have emerged in the empirical reality at the level of measurement and disclosure for example how to measure cost versus benefit, and the problem of determining social standards also emerged.

The accounting profession also encountered several demands, including requiring accountants to evaluate social cost and include them in their financial reports, to explain the mechanism for treating pollutant costs, compensation costs, reporting them, and their effects on return on investment and stock prices. As well as the issue of recording potential future obligations resulting from the harms that entities caused, which was the one of the most important challenges. The emergence of the concept of economic Welfare also had a significant impact in putting pressure on society to submit proposals to address the negative effects on others because of entities practicing their economic activities. The researchers' recommendations resulted in the fact that socio-economic accounting needs a new conceptual framework that meets the needs of all categories of financial statement users, which is derived by focusing on the social effects of accounting technical conditions and procedures. The current review also included a survey of relatively recent studies vis-à-vis the aims and vision of socio-economic cost accounting, through methods of calculating socio-economic costs at the aggregate level of monitoring and evaluating the socio-economic performance of entities.

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