











The Impact of Social Marketing on Sustainable Development Goals: Aims & Challenges : An Analytical Study of a Sample of Mosul University Students



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Abstract:

This study aims to identify the impact of social marketing on the sustainable development goals at the University of Mosul. The study consists of two main variables: the independent variable, which includes social marketing, and the four dimensions: social product, social price, social promotion, and social distribution. The dependent variable represents the sustainable development goals, whose dimensions consist of: Goal 1: No Poverty, Goal 2: Zero Hunger, Goal 3: Good Health, and Goal 4: Quality Education. This research paper highlight on social marketing as a modern trend in business organizations linked to sustainable development goals, which has led many companies to adopt the philosophy of sustainable development as a development model for managing their businesses, the results of the finding notified the existence of a significant relationship between of the Social Marketing and Sustainable Development Goals in Mosul University. To achieve the objectives of the study, the main results of the research paper, we note that the value of the regression coefficients for the dimensions of the independent variable social marketing with its dimensions (product, pricing, promotion, distribution) respectively, as the significance is less than (0.05), except the pricing dimension, which has a statistically insignificant significance, as its significance reached (0.066). From another hand, questionnaire forms were distributed to (384) individuals from the students at the University of Mosul, including 184 Paper Questionnaire and (200) Electronic form for hard-to-reach colleges (geographically distant) and all forms were retrieved as the number of forms valid for analysis was 384 by a 100% percentage, in addition to the challenges of cost, time, and effort. The sample size was 384 in various faculties, with 17 faculties. The number of students at the university was 51253 for the academic year 2023-2024. On the other hand, the data was analyzed using the statistical package SPSS Version 25. The research reached a set of recommendations, the most important of which were: Benefiting from successful international experiences in major countries and working to implement them on the ground in developing countries to motivate governments to achieve the sustainable development goals in all areas, thus ensuring the achievement of

sustainable development in the long term.

Key words: Social Marketing, Sustainable Development Goals, University of Mosul.

1. Introduction:

Social marketing is a humanitarian purpose which is to help ordinary people by awareness-raising them and changing their errors (Ma, Wang, Dai, Guan, & Yang, 2025), bad ethical values and misunderstanding, as these behaviors are instantly harmful to world (Beninger & Robson, 2025). Using marketing scheme, the theory of social marketing grown recently in the at last twentieth, when the idea (MAAROOF, ATAMAN, & NASIF, 2022) of social marketing concerned with the design, accomplishment and control of planned intended to impact the acceptance of social ideas that contain questions of product planning, pricing, promotion, distribution and marketing research (Braithwaite et al., 2025).

Because of these changes and developments (Maaroof & Kalay, 2020; Nurhadi, Suryani, & Fauzi, 2025), the old marketing thinking has given way to new ways of thinking, as the Smart Ways and methods of marketing develop customer knowledge, CRM techniques and understanding of customer economics, it invites customers to interact, cooperate and design the product together (Nurhadi et al., 2025), as well as it is ready to offer flexible offers in the market. With the emergence of the social responsibility of marketing activity and its increasing impact on the economic, environmental, and social aspects of individuals and society, it is considered to be enhanced in determining the level and quality of existing ideas (Chae, Rodríguez-Vilá, & Bharadwaj, 2025).

Business organizations have towards the concept of social responsibility and the philosophy of social marketing by building an effective partnership between civil society organizations and business companies under the direct supervision of governments by dissecting laws that provide for the preservation of the environment, the problem with the study is to determine the essence of the relationship between the social marketing dimensions and the sustainable development goals of the students' sample at Mosul University. Accordingly, the study's problem is reflected in the following questions:

What is the relationship between social marketing dimensions and sustainable development goals for Mosul University students? Sub-hypotheses appeared from it:

Q1: What is the Impact of social marketing dimensions (Social product) on sustainable development goals for Mosul University students?

Q2: What is the Impact of social marketing dimensions (Social Price) on sustainable development goals for Mosul University students?

Q3: What is the Impact of social marketing dimensions (Social promotion) on sustainable development goals for Mosul University students?

Q4: What is the Impact of social marketing dimensions (Social Distribution) on sustainable development goals for Mosul University students?

On the other hand, the importance of this research paper shows that it dealt with the topic of social marketing in the Sustainable Development Goals due to the aggravation of negative behaviors towards the environment in Iraqi society (Fusté-Forné & Filimon, 2025), and the prevalence of the phenomenon of contradiction between reality and the reality that individuals carry about the concept of Environment and sustainability, as focusing on social marketing by organizing media campaigns through social media by business organizations and large industrial companies concerned with environmental protection can pose a challenge to this kind of practices (Ayokunmi, Abu Seman, Rashid, & Mohamad, 2025), relying on the principles of media campaigns contributes to building an environmental culture among individuals and communities, thereby protecting the environment (Ayokunmi et al., 2025).

The importance of the study also stems from the fact that it leads to changing the behaviors of citizens and leads to effective participation of the masses in the process of correcting negative behavioral problems towards the environment, in addition to highlighting the importance of scientific research in the field of Ecology and the need to preserve natural resources.

This research paper seeks to achieve a set of objectives: Present the concept of constitutional sustainable development and its measurement indicators, as well as the tasks of social marketing, discuss the challenges facing the application, and learn about the philosophy of applying social marketing. By highlighting the importance of social marketing (MAAROF & OĞRAK, 2022), especially in terms of its implications on the application of the objectives of constitutional Sustainable Development Through Environmental media campaigns in support of responsible environmental behavior of citizens towards the environment the introduction to the research clarifies: the importance of the research, the research objectives, previous studies that enable researchers to formulate research hypotheses, the theoretical aspect, the field of application of the research (the research sample), the research results, and the recommendations (Maaroof * & Oğrak, 2024).

2. Literature Review and Hypothesis Development:

Researchers' contribution to social marketing and sustainable development remains doubtful. Based on the review of literary references, this branch of the study aims to survey past reviews that have been tested with research variables from another viewpoint. Including the study of (Desouki, et al., 2023) entitled Studying the relationship between the dimensions of social marketing and health behavior change for Ain Shams University students using the prevention campaign origin of the story (field study) The study aimed at: studying the relationship between the dimensions of social marketing and health behavior change for Ain University Students at Ain Shams using the prevention campaign origin of the tale. The Study methodology: the study was based on the descriptive analytical approach to cause-effect relationships Among the variables, the methodology of the study was: the survey forms were distributed to the study sample consisting of (355) single from Ain Shams University, and presented the awareness campaign selected based on a survey study to a facilitated sample consisting of (25) single from the Faculty of Commerce - Ain Shams University, in order to achieve the objectives of the study. The results of the study were: the study found that there is a statistically significant relationship between (social product, social promotion, social distribution) and health behavior change for Ain Shams University students, and that there is no statistically significant relationship between social pricing and health behavior change, in order to prevent the origin of the story. Another study (Smith, 2006) entitled Social marketing: a review of way and object This study aimed to learn the impact of sustainable marketing application in its dimensions: green marketing, social marketing, Ecology marketing to improve the enterprise's self-image among LG customers The questionnaire was used as a tool for gathering information, as it was distributed to an estimated 180 company clients. In order to process the data using the SPSS v26 statistical package software, relying on statistical methods, the results found a series of findings that there is a statistically significant relationship and effect between social marketing and the company's mental image on the other side the study (Oltra, Camarero, & San José, 2025)

By the above, we suggest the following main hypothesis: **There is a significant impact of the Social Marketing and Sustainable Development Goals in Mosul University**, and the following sub-hypotheses emerge from it:

H1: There is a significant effect of social marketing dimensions (Social product) and sustainable development goals for Mosul University students.

H2: There is a significant effect of social marketing dimensions (Social Price) on sustainable development goals for Mosul University students.

H3: There is a significant effect of social marketing dimensions (Social promotion) on sustainable development goals for Mosul University students

H4: There is a significant effect of social marketing dimensions (Social Distribution) on sustainable development goals for Mosul University students.

2.1 Social Marketing:

Social marketing is the new face of classic business marketing, which aims to change or modify Opinions, trends, beliefs(Cardwell et al., 2025), ideas and behavior of individuals in order to achieve environmental goals and preserve the environment by preparing targeted and influential media campaigns through social media and then implementing them and implementing successful social campaigns is not easy because it takes a long time to achieve the target groups of advertising campaigns(Macapagal et al., 2025), as customers see that such campaigns interfere with their lives(Ying, Te Chuan, Rashid, & Abu Seman, 2025), personal freedoms and tacit knowledge, primarily if the campaign aims to change their attitudes and behaviors(Laradi, Elfekair, Alrawad, Hashim, & Derouez, 2024),(Maaroof & Çalık, 2021), Therefore, the formation of social attitudes and values is formed in the development of human and behavioral norms that serve as a social Constitution in dealing with Man and various social issues(Ahmed, Hardey, & Vidal-Alaball, 2025).

2.2 The Historical Development of Social Marketing:

The current period between World War I and II saw the emergence of several marketing theories along with the emergence of the concept of marketing(Spörl-Wang, Krause, & Henkel, 2025), Then business organizations turned to marketing instead of the concept of selling, All these transformations have led to the study of consumer behavior, marketing mix and marketing research and consider them important for the success of the projects In the same vein(Shi, Hu, Nagasawa, & Gao, 2024), many companies have begun to modify their marketing objectives and study customers' needs and desires for satisfaction, satisfaction and participation in decision-making(Xia, Xu, Zhang, Jiang, & Cui, 2024), At the end of the last century, the efforts of researchers in society focused on the practical implementation and actual application of social marketing, especially in the United States of America, for its importance in supporting sustainability issues, climate change and the environment(Omeish, Al Khasawneh, & Khair, 2024), so that its principles were used in programs for organizing social life and family life of American families and campaigns to prevent smoking, drug use and extremist ideas(Bashirzadeh, Howard-Malek, Yamim, Petersen, & Nadalizadeh, 2024), so that social marketing programs and the degree of its implementation reached the point of forcing people to adopt all positive behaviors and ideas that benefit them in social life, and this thanks to communication technologies, social media platforms and the increase in social marketing products over the years Over the past twenty years, interest in social marketing has increased in many countries of the European Union and some developing countries(Alsharairi & Li, 2024).

2.3 The difference between commercial and social marketing:

Social marketing aims to achieve the goals of sustainable development and preserve the environment and society as a whole (Ong, Sun, & Ito, 2024), and does not aim to focus on profitability as in traditional commercial marketing, but The goals that social marketing pursues in business organizations are more difficult to achieve than the goals of commercial marketing, this is because commercial marketing provides immediate satisfaction of customers desires (Maduku, 2024), which are often daily buying habits, while the results and benefits of following the goals of social marketing are sustainable and long-term, As well as social marketing seeks to change the thoughts and beliefs of consumers (Zhang, Zhou, Wei, & Shi, 2025), this is an implicit knowledge in their minds that requires time and effort by those in charge and supporters of social marketing, in fact many customers are unconvinced by it (Ibraheem & Mhaibes, 2025), and the environment surrounding the individual and the general political and economic climate often encourages traditional marketing (Kim & Wang, 2024), For example, the efforts of social marketing proponents may conflict with the interests of businesses and organizations with a global market share that have a strong and influential brand, such as anti-smoking campaigns to reduce environmental pollution or limit fast food intake (Sheykhan et al., 2024), Many social marketing campaigns across social media platforms are not directly beneficial to the individual, but to society in general (Saifi Gomair Elias & Al.zubaidi, 2025), such as campaigns to encourage the purchase of green products with a harmless impact on the environment and campaigns to recycle products and thus routinely recycle waste (Ye, Hou, Wang, & Omar, 2024), Ultimately, many ethical, religious, social and human issues overlap with social marketing goals, and experts' opinions sometimes conflict with regard to how to reach the client's target behavior and what the plan is to target future customers (Singh, 2024).

2.4 Social Mix Marketing:

Many social marketing literatures indicate a growing trend of expansion of the concept of social marketing mix by business organizations (Maaroof, 2021), adding more elements to this mix, the social marketing mix is a combination of elements (Maaroof * & Oğrak, 2024): which are used to design and implement social marketing campaigns effectively. The five main elements that make up:

- **The social product:**

It refers to the issue or topic the campaign seeks to promote or change (Han, Mingying, & Peng, 2025). The product must be relevant to the needs and problems of society, one of its top priorities is to preserve the environment, reduce the carbon footprint (Shepherd & Lane, 2019), and provide practical solutions to improve the individual's life (poverty eradication is the second goal of the Sustainable Development Goals) Which is presented to the target audience, which may be tangible or intangible in the form of a service, Signal, practice, behavior or just an idea, and includes decisions related to services, quality, characteristics, choices (Weinberg & Pehlivan, 2011).

- **The Social Price**

It represents the real cost individuals and society bear due to changing their behavior (Sheau-Ting, Mohammed, & Weng-Wai, 2013), ideas, beliefs, or adopting the cause promoted by the campaign (Gordon, 2012). This may include the material cost, such as buying an environmentally friendly product (for example, buying an environmentally friendly hybrid car), or the addressable cost, such as changing previous wrong eating habits (Duffett & Thomas, 2024). Pricing is considered to be that talent art that translates the value of the offered products into monetary units paid by the customer at a particular moment in time in exchange for receiving a specific good or service (Hoang & Pham, 2025).

- **The Social Place**

Providing suitable outlets or distribution channels is one of the most important factors contributing to the successful marketing of any tangible or intangible product (Moeini, Barati, Khazaei, Tapak, & Hashemian, 2024). In the case of a social product, distribution channels play an important role in reaching as many customers as possible and ensuring that the desired goals behind this product are achieved (Malarvizhi, Al Mamun, Jayashree, Naznen, & Abir, 2022). In the case of a tangible social product, it includes stores (Fergus, Long, & Holston, 2023), transportation, sales force, retail stores where the product is sold, or places where the product is obtained for free, and in the case of an intangible social product, it refers to the channels through which consumers can reach either to provide them with information about the social product (Zhu, Kong, Deng, & Tan, 2020).

- **Social promotion**

Social promotion plays a pivotal role in the success of any product or social service (Fergus, Holston, & Long, 2022). It helps to spread social and environmental awareness about this product or service, attract the attention of target audiences, and motivate them to buy it (Zhu, Zhou, Deng, & Wang, 2019). Promotion expresses a communication and persuasion strategy that makes the product familiar, acceptable, and desirable for target customers within the business plan of business organizations, and includes advertising, publishing (Bandyopadhyay, Woszczynski, & Crowell, 2025).

- **The audience (The Target's Customers)**

Customers and the public are the essence of the marketing process, as they are among the most important factors contributing to the success of any business. Whatever the quality of the product or service (Jave-Chire, Alvarez-Risco, & Guevara-Zavaleta, 2025), it will not achieve success without a qualified and capable team to market and sell it effectively. The human element is the ones who sell and deliver the product to the target audiences (Sohaib & Han, 2023).

2.5 Social Marketing Campaigns

Media campaigns are an essential part of modern communication channels, as they represent an effective tool for transmitting information and influencing target customers (Agnihotri, Afshar Bakeshloo, & Mani, 2023). These campaigns vary in their goals and methods of implementation from one company to another, depending on their marketing goals (Balaji et al., 2023). However, their main goal is to achieve the organization's goals, which seek to increase global market share through social media marketing (Rohit, Ranjan, & Shainesh, 2025).

2.6 Importance of social marketing

Business companies today realize that knowledge management of customer behavior has become necessary and important (Keke, 2022):

- Social marketing meets customers' needs, satisfies their desires, and improves their living standard within the Sustainable Development Goals (Mourre, 2022).
- Social marketing is concerned with the social and environmental responsibility that falls on the shoulders of industrial companies that are committed to preserving the environment (Abdul Karim & Tala Asim Faiq, 2025), leading to building a mental image among customers (Danook & Al.obaidy, 2022).
- Social marketing helps to push service organizations to provide what is socially, environmentally, and economically acceptable and what serves environmental values, customs, and traditions (Danook, Yassin, al.obaidy, & Almejdhah, 2023).

2.7 The importance of social media:

Social marketing is a new style or a new idea of marketing that focuses on achieving social and environmental goals (Danook et al., 2023), in addition to achieving commercial goals (Munther Sami Qasim & Hamed, 2025), through the use of traditional and digital marketing strategies and tools to spread awareness and stimulate interaction with the target audience and influence its behaviors (Vassey, Chang, Valente, & Unger, 2025).

It is an evolving style of marketing that combines the economic, social, and environmental dimensions of the business activities of business organizations, as it aims to achieve profit and sustainability, while at the same time working to bring about positive social change (Alshaikh, Maynard, & Ahmad, 2021), by focusing on promoting awareness of societal challenges, changing the behaviors of individuals and communities for the better, in areas such as health, environment, education and other issues that affect people's daily lives (Saraç, Erdoğan, & Dirsehan, 2025).

2.8 Sustainable Development Goals:

2.9 Sustainable Development Overview:

The worldwide community is at a critical step in accomplishing the Sustainable Development Goals (Han et al., 2025). After more than four years of the COVID-19 pandemic, there have been millions of deaths. The human and economic losses have been unusual, and restoration efforts have so far remained uneven. They are not fair and do not have enough focus on achieving sustainable development (Ye et al., 2024). The current emergency threatens to undo decades of development gains, also delaying the emergency transition to greener and more inclusive economies, and even further pushing improvement in achieving the Sustainable Development Goals in the wrong direction (Abbasi, Qummar, Bashir, Aziz, & Ting, 2024).

If the transfer in perspective planned by the 2030 Calendar for sustainable development over the previous six years had been entirely accepted, the world would have been better prepared to face this crisis if there were stronger health systems. More exhaustive social protection coverage, resilience achieved by a fair community, and a healthier natural environment (Waqar, Othman, & Shafiq, 2025). The Sustainable Development Goals, unfortunately, were already off track even before the onset of Covid-19. Progress has been made in poverty reducing, maternal and infant health, approach to electricity and gender equality. However, the rate of progress has not been sufficient to achieve the goals by 2030 (Guan et al., 2025).

2.10 Can 17 Goals transform our World into a sustainable community?

It is a collection of 17 targets managed by the United Nations, Sustainable Development Goals (SDGs), mentioned in the UN Overall Assembly Resolution of September 25, 2015 (Revinova & Lazanyuk, 2025). The 17 Sustainable Development Goals were included in the 2030 SDGs. Every comprehensive goal is relevant, but it has a few aims, which are united to describe 169 goals. The sustainable development goals include a vast scope of social and economic development matters (poverty, food security, health, education, environmental change, gender equality, water and sanitation, power, environment, social rights). However, the sustainable development goals are not lawfully mandatory. Governments own them and create a public scheme for their accomplishment (Boadi, Osei-Tutu, Acquah, & Tenkorang, 2025).

2.11 Characteristics of Sustainable Development:

Sustainable Development is considered a cross-generational phenomenon that expresses an international approach and seeks to eliminate the disparity between developed and developing countries. This is evident in (Raghu Raman, Kautish, Siddiqui, Siddiqui, & Nedungadi, 2025):

a) sustainable development is a cross-generational phenomenon (it is a philosophy that is handed down from the current generation to the next generation): that is, it is a process of transformation from one generation to another and from a process that occurs at several levels (global, regional, local), however, what is considered sustainable at the national level does not have to be so at the global level (Maghsoudi, Mohammadi, Soghi, & Sabet, 2025).

b) International approach: sustainable development seeks to overcome the disparity between North and South, focusing on the global dimension of environmental degradation, and to reduce environmental risks as carbon dioxide is a preference for advanced countries, but in developing countries it is necessary to limit population growth and set up a balance between economic growth and changes in the mode of production and consumption(R. Raman, Sreenivasan, Kulkarni, Suresh, & Nedungadi, 2025).

2.12 The concept of sustainable development:

In 1987, specifically, the official birth of the concept of sustainable development, where sustainable development was determined as development that responds to the needs of the current generation without harming the capabilities of futurity generations(R. Raman et al., 2025), natural resource base and the direction of technological and institutional changes in a way that ensures the satisfaction of Current and future human needs on an ongoing basis, On the other hand, sustainable development is an integrated concept that combines the economy, the environment and society, as it seeks economic prosperity (Zero hunger 2nd), the well-being of peoples (No poverty 1st objective) and achieving social justice (Pease, Justices and strong industry 16th objective), and includes sustainable development, three dimensions, namely the economic, social, environmental and social dimensions, are the pillars of sustainable development. considering the above-mentioned third dimensions(Capar & Arslanoglu, 2025).

2.13 Sustainable development as a concept of a new opportunity for society:

The philosophy of sustainable development as an idea refers to leaving the opportunity to future generations as a result of population inflation, as all countries seek to develop solutions to cope with population increase to avoid its harmful consequences globally(Martinengo, Diamanti, Uliassi, & Bolognesi, 2025), and this leads us to define the concept of opportunity from the economic side, it is the development of intellectual capital to provide a better life for future generations, that is this broad concept, in addition to the economic dimension - improving the lives of people, especially those with limited income; improving skills and knowledge civil rights(Wang, Zhang, Li, & Zhang, 2025), freedoms and political representation. Economic development has become concerned with the economic and social aspects of the individual, as economic development has been redefined based on work to alleviate poverty, achieve justice, provide employment opportunities, and develop strategies for growth with redistribution(Mohtasim, Kibria, Pranto, & Das, 2025).

2.14 Motives for adoption of the world's sustainable development goals:

At the United Nations Conference on Sustainable Development in Rio de Janeiro in 2012. The goal was to develop global goals to address our world's pressing environmental, political, and economic challenges. Unlike its predecessor, the Millennium Development Goals, the Sustainable Development Goals explicitly call on all companies to employ their creativity and innovation to solve sustainable development challenges(Baninla, Wang, Pu, Gao, & Zhang, 2025).

2.15 The meaning of sustainable development for business organizations and industrial companies:

According to the World Health Organization, sustainable development is a wide term to describe policies, projects and investments that offer profit today unless compromising environmental, social and personal health in the future For companies, sustainable development means taking targeted actions to track and reduce the environmental footmark - actually while you are growing your organization(Bosch-Badia, Montllor-Serrats, & Tarrazon-Rodon, 2025).

2.16 Social Marketing: The recent side of sustainable development:

Since social marketing is a causal element to the sustainable development project, sustainable development is based on the theory that development and environmentally friendly protection are incompatible. The philosophy of sustainable development is clear as an approach, way, or aim rather than a substantive formula. The guide of this conception is situated right with the change of the earlier total development idea (Gavahian, Chaosuan, Yusraini, & Sastry, 2025).

2.17 The reality of implementing sustainable development in Iraq

Within the framework of the Global Development Agenda 2015-2030, the Ministry of Planning has begun its work on preparing a plan within the framework of this global agenda, represented by the formation of the National Committee for Sustainable Development, the aforementioned committee began its work by forming a group of working groups according to the axes of the global agenda, as well as working on holding four conferences to prepare a roadmap within a sustainable development framework. The first scientific conference was held on November 24, 2016, under the slogan Iraq 2030... The Future We Aspire to. A group of researchers participated in the conference through important research papers according to the conference axes (Maaroof, Dedeoğlu, & Ahmed, 2025).

2.18 Challenges to sustainable development implementation:

Sustainable development is the ongoing development process of the earth, business, and all aspects of energy, which aims to attain self-sufficiency in various areas. In this view, we will prepare an investigation into sustainable development and the obstacles to its achievement. Although the world's attempts to develop solutions for sustainable development are obstructed by the following points (Hao, Li, Li, & Wu, 2025):

- Sudden population inflation is damaging sustainable development.
- The widespread prevalence of poverty in developing and rich countries is also due to the deterioration of the economic situation and the decline in currency exchange rates.
- The common spread of wars and conflicts has affected many countries' independence.
- Popular spread of informal areas, and departure from agricultural areas to urban areas.
- Much of the planet's land is exposed to radical climatic conditions.

3. Methodology:

3.1 Society and Sample Research:

The researchers conducted formal structured appetizers with some of the sample members, as well as distributed the questionnaire forms to the surveyed sample members (students at Mosul University) from the study community, due to the difficulty of conducting a comprehensive inventory of the community as a whole, in addition to the challenges of cost, time, and effort. The research sample size was 384 in various faculties, with 17 faculties, and the number of students at the university was 51253 for the academic year 2023-2024.

3.2 Sample:

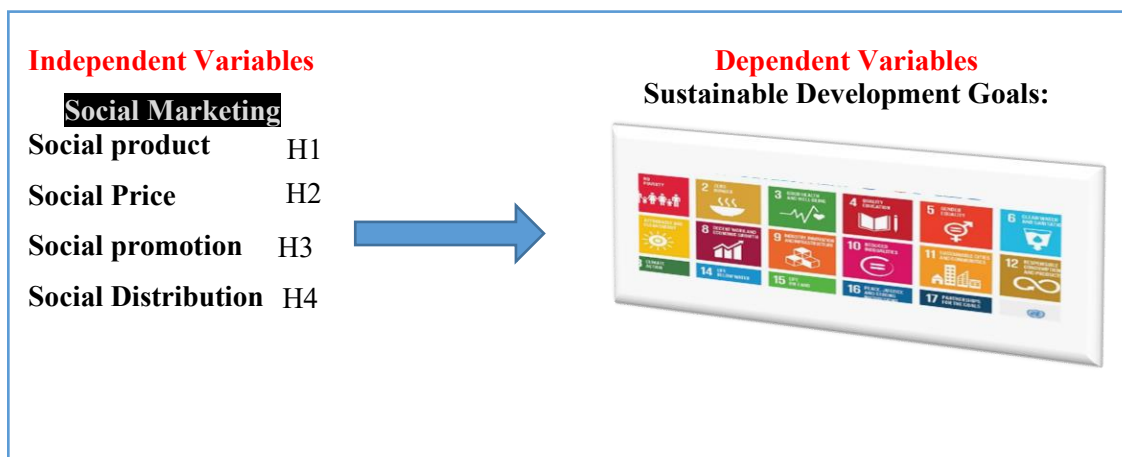
Questionnaire forms were distributed to the sample under research, and they were students of Mosul University. The sample was distributed to 19 scientific and humanitarian colleges depending on the number of students in the college as well as conducting structured formal interviews with academic staff. On the other hand, the data was analyzed using the statistical package SPSS Version 25 and the table (1) shows the distribution of the paragraphs of the questionnaire to the research variables under Study.

Table (1): shows the distribution of the paragraphs of the questionnaire

Variables	Dimensions	Items	Source
Social Marketing	Social product	8	(Danook et al., 2023)
	Social Price	8	
	Social promotion	8	
	Social Distribution	8	
Sustainable Development Goals	1 st Goal No Poverty	8	(Bandyopadhyay et al., 2025)
	2 nd Zero Hunger	10	
	3 rd Good health	10	
	4 th Quality Education	10	

3.3 The research model:

The virtual research plan outlines the research variables and their dimensions and the understanding of the relationships and impact between them, as they represent (social marketing) as an independent variable of its sub-dimensions, while the dependent variable is (sustainable development goals), and figure 1 shows the main variables and their sub-dimensions as follows:

**Figure 1:** The research model

Source: Researchers' preparation

3.4 Research tools and methods:

Researchers took the sample available from Mosul University students (Sample Research) Using the appropriate distribution method according to the number of students in the colleges in addition to the researchers distributed (384) retrieved questionnaire forms including 184 Paper Questionnaire and (200) Electronic form for hard-to-reach colleges (geographically distant) and all forms were retrieved as the number of forms valid for analysis was 384 by a 100% percentage. The number of students at Mosul University and the relative distribution of each college, with a breakdown of the sample vocabulary, the number of distributed forms, and the response rate at each college, as shown in Table No. (2)

Table (2): Data Questionnaire Response Mean

#	Faculty	No. of Students for each Faculty	Percentage %	Distributed Questionnaire	Total Responses	Percentage Responses
1	Basic Education	6193	12.08 %	64	64	100%
2	Education for pure Science	5132	10.01%	52	52	100%
3	Education for Human Studies	4982	9.72%	45	45	100%
4	Education for Girls	4813	9.39%	40	40	100%
5	Art	4806	9.37%	39	39	100%
6	Engineering	3861	7.53%	35	35	100%
7	Science	3012	5.87 %	29	29	100%
8	Manage. & Economic	3005	5.86%	25	25	100%
9	Medicine	2923	5.72%	24	24	100%
10	Nursing	2654	5.17 %	20	20	100%
11	Veterinary Medicine	2397	4.67%	11	11	100%
12	Pharming	2106	4.10%	10	10	100%
13	Density	1150	2.24 %	8	8	100%
14	Law	1135	2.21%	6	6	100%
15	Political Science	991	1.93%	5	5	100%
14	Fine Art	753	1.46%	4	4	100%
15	Environmental Science	632	1.23%	4	4	100%
16	Oil Engineering	450	0.87%	3	3	100%
17	Agriculture	258	0.50%	2	2	100%
	Total	51253	100.00%	384	384	100%

4. Results of data analysis and hypothesis testing:

4.1 Discussion of the Cronbach's Alpha analysis test:

Table 3 shows the results of Reliability for the independent variable (social marketing) and the dependent variable (SDGs)

Table (3): Reliability of the Questionnaire

Variables	Dimensions	Cronbach's Alpha for each dimension	Cronbach's Alpha for each variable	No. of Statement	Total	Percent
(Independent variable) Social Marketing	Social product	0.703	0.828	8	384	%100
	Social Price	0.765		8	384	%100
	Social promotion	0.816		8	384	%100
	Social Distribution	0.761		8	384	%100
(Dependent variable) Sustainable Development Goals:	1 st Goal No Poverty	0.731	0.818	8	384	%100
	2 nd Zero Hunger	0.811		10	384	%100
	3 rd Good health	0.737		10	384	%100
	4 th Quality Education	0.712		10	384	%100
Total		0.755	0.823	70	384	%100

Source: SPSS V.25 program output.

The results of Table 3 indicated the consistency of the questionnaire, with the survey form's overall consistency in the total of independent variables, followed by 0.823, which is greater than 0.70. Therefore, the questionnaire has a high degree of stability. This means that if we redistribute the survey forms to another sample of the same society and the exact size of the sample, the results will approximate the results we obtained from the initial sample. The results between the two samples are equal to a constant factor.

4.2 Discussion of the results of Inferential statistics:

A. The following main hypothesis: H1 1 there is a statistically significant impact of the dimensions of social marketing on the Sustainable Development Goals for students of the University of Mosul

By conducting a test to verify the validity of the previous hypothesis, the research team Studied a simple regression analysis between the independent variable (the four dimensions of social marketing combined) and the dependent variable (the Sustainable Development Goals), and the result of the regression analysis was as shown in Table (4).

Table (4): Results of a simple regression analysis: Pearson's correlation coefficient between social marketing dimensions and sustainable development goals

dependent variable	independent variable	regression coefficient B	T-test		F- Test		coefficient correlation Pearson's R	R ²
			T	P-value	F	P-value		
Sustainable Development Goals	Social Marketing	0.928	18.255	0.001	333.163	0.001	0.682	0.465

Source: SPSS V.25 program output.

Table 4 shows the Significance of the regression model: The F-test results indicated statistical significance in the regression model, as evidenced by the F-value of 333.163, at a significance level of 0.001, which is smaller than the significance level of 0.05., from another side Strength of the correlation relationship: The value of the correlation coefficient reached ($R = 0.682$), which indicates the presence of a medium direct correlation between the independent variable (social marketing) with its four dimensions combined and the dependent variable (sustainable development goals). , - In addition to the significance of the independent variable, the value of Beta ($B = 0.928$) appeared, which is the value of the regression coefficient for the independent variable, social marketing, with its four dimensions combined, and indicates the existence of a direct correlation between the independent variable and the dependent variable. The result of the (T-Test) also indicates that this relationship is significant and that the effect of (social marketing) with its four dimensions combined is statistically significant, as the significance is less than 0.05. Based on the above, the main hypothesis is accepted and formulated as an alternative hypothesis, which states that there is a statistically significant relationship between the dimensions of social marketing and the goals of sustainable development for students of the University of Mosul.

B. Sub-hypothesis Test

The first sub-hypothesis H1.1: There is a statistically significant positive effect of the social product on sustainable development goals for students of the University of Mosul.

The researchers tested the validity of the previous hypothesis by conducting a simple regression analysis between the independent variable (social product) and the dependent variable (sustainable development goals) for students at the University of Mosul. The result of the regression analysis is shown in Table No. 5.

Table (5): Results of a simple regression analysis between the social product dimensions and the sustainable development goals

Dependent variable	Independent variable	Regression coefficient B	T-test		F- Test		coefficient correlation Pearson's R	R^2
			T	P-value	F	P-value		
Sustainable Development Goals	Social Product	0.657	12.751	0.001	168.987	0.001	0.559	0.319

Source: SPSS V.25 program output.

Table 5 shows the Significance of the regression model: The results of the F-test indicated that the regression model was significant, as shown by the F value of 168. 987, with a significance level of 0.001, which is smaller than the significance level of 0.05. - Strength of the correlation relationship: The value of the correlation coefficient reached ($R = 0.559$), which indicates the presence of a medium direct correlation between the independent variable social product and the dependent variable sustainable development goal, we also see the Strength of the correlation relationship in value of the correlation coefficient reached ($R = 0.559$), which indicates the presence of a medium direct correlation between the independent variable (social product) and the dependent variable (sustainable development goals), which explaining (31.9%) of the variance that occurs in the dependent variable. We also note that the Beta value (0.657), the regression coefficient value for the independent variable (social product), indicates a direct correlation between the independent and dependent variables. This means that any increase in the efforts of the (social product) by 1.00% is met by an increase in healthy behavior by 65.7%. The T-Test result also indicates that this relationship is significant and that the effect of the (social product) is statistically significant, as the significance is 0.000, less than 0.05. The T-Test result also indicates that this relationship is significant and that the effect of the social product is statistically significant, as the significance is (0.000), which is less than (0.05).

Based on the above, the first sub-hypothesis is accepted, and formulated as an alternative, stating that there is a statistically significant relationship between the social product and the sustainable development goals of the students at the University of Mosul.

The Second sub-hypothesis H1.2: There is a statistically significant positive effect of the social price on sustainable development goals for students of the University of Mosul.

The research team conducted a test to verify the validity of the previous hypothesis by calculating a simple regression analysis between the independent variable (social pricing) and the dependent variable (sustainable development goals), and the result of the regression analysis is shown in Table (6):

Table (6): Results of a simple regression analysis between social price dimensions and sustainable development goals

Dependent variable	Independent variable	Regression coefficient B	T-test		F- Test		coefficient correlation Pearson's R	R ²
			T	P-value	F	P-value		
Sustainable Development Goals	Social Price	0.625	12.419	0.001	154.232	0.001	0.536	0.288

Source: SPSS V.25 program output.

Table (6) shows the Significance of the regression model: The results of the F-test indicated that the regression model was significant, as shown by the F value of 154.232, with a significance level of 0.001, which is smaller than the significance level of 0.05., we also see that the correlation coefficient value ($R = 0.625$) indicates a moderate direct correlation between the independent variable (social promotion) and the dependent variable (sustainable development goals)., The coefficient of determination value was ($R^2 = 0.288$), which indicates that the independent variable (social pricing) explains 28.8% of the variance that occurs in the dependent variable (sustainable development goals). The Beta value (B 0.624), the regression coefficient value for the independent variable (social pricing), indicates a direct correlation between the independent and the dependent variables. This means that any increase in (social pricing) efforts by 1.00% is met by an impact on the sound (sustainable development goals) by 62.4%. The T-Test result also indicates that this relationship is significant and that the impact of (social pricing) is statistically significant, as the significance is 0.000, less than 0.05.

Based on the above, the second sub-hypothesis is accepted (which was formulated as an alternative hypothesis, which states that there is a statistically significant relationship between social pricing and the sustainable development goals of the students of the University of Mosul.

The Third sub-hypothesis H1.3: There is a statistically significant positive effect of the social promotion on sustainable development goals for students of the University of Mosul.

The researchers tested the validity of the previous hypothesis by calculating a simple regression analysis between the independent variable (social promotion) and the dependent variable (sustainable development goals). The result of the regression analysis is shown in Table No.7.

Table (7): Results of a simple regression analysis between social promotion dimensions and sustainable development goals

Dependent variable	Independent variable	Regression coefficient B	T-test		F- Test		coefficient correlation Pearson's R	R ²
			T	P-value	F	P-value		
Sustainable Development Goals	Social Promotion	0.701	18.001	0.001	324.040	0.001	0.677	0.459

Source: SPSS V.25 program output.

Table 7 shows the Significance of the regression model: The results of the F-Test indicated that the regression model was significant, as shown by the F value of 324.040, with a significance level of 0.000, which is smaller than the significance level of 0.05. and the correlation coefficient value ($R = 0.677$) indicates a moderate direct correlation between the independent variable (social promotion) and the dependent variable (sustainable development goals). While we note that the value of the coefficient of determination ($R^2 = 0.459$), this indicates that the independent variable (social promotion) explains 45.9% of the variance that occurs in the dependent variable (sustainable development goals). We also note that the Beta value ($B = 0.701$), the regression coefficient value for the independent variable (social promotion), indicates a direct correlation between the independent and dependent variables. This means that any increase in (social promotion) efforts by 1.00% is met by an increase in (sustainable development goals) by 70.1%. We also note that the value of the (T-Test) indicates that this relationship is significant and that the effect of (social promotion) is statistically significant, as the significance is (0.000), which is less than (0.05).

Based on the above, the third sub-hypothesis is accepted, which was formulated as an alternative, which states that there is a statistically significant relationship between social promotion and sustainable development goals for students of the University of Mosul.

The Fourth sub-hypothesis H1.4: There is a statistically significant positive effect of the social distribution on sustainable development goals for students of the University of Mosul.

The researchers tested the validity of the previous hypothesis by a simple regression analysis between the independent variable (social Distribution) and the dependent variable (sustainable development goals). The result of the regression analysis is shown in Table (8).

Table (8): Results of a simple regression analysis between Social Distribution dimensions and sustainable development goals

Dependent variable	Independent variable	Regression coefficient B	T-test		F- test		coefficient correlation Pearson's R	R ²
			T	P-value	F	P-value		
Sustainable Development Goals	Social Distribution	0.542	8.080	0.001	112.221	0.001	0.477	0.227

Source: SPSS V.25 program output.

Table 8 shows the Significance of the regression model: The results of the F-Test indicated that the regression model was significant, as shown by the F value of 112.221, with a significance level of 0.001, which is smaller than the significance level of 0.05. and the correlation coefficient value ($R = 0.477$) indicates a moderate direct correlation between the independent variable (social promotion) and the dependent variable (sustainable development goals). While we note that the value of the coefficient of determination ($R^2 = 0.227$), this indicates that the independent variable (social promotion) explains 45.9% of the variance that occurs in the dependent variable (sustainable development goals).

We also note that the Beta value ($B = 0.542$), the regression coefficient value for the independent variable (Social Distribution), indicates a direct correlation between the independent and the dependent variables. This means that any increase in (social promotion) efforts by 1.00% is met by an increase in (sustainable development goals) by 54.2%. We also note that the value of the (T-Test) indicates that this relationship is significant and that the effect of (social promotion) is statistically significant, as the significance is (0.000), which is less than (0.05).

Based on the above, the fourth sub-hypothesis is accepted, which was formulated as an alternative, and states that there is a statistically significant relationship between social distribution and sustainable development goals for students of the University of Mosul.

C. Multiple regression analysis:

Main hypothesis H1: There is a statistically positive impact of social marketing on the sustainable development goals of Mosul University students.

The researchers conducted a test to verify the validity of the previous hypothesis by calculating the multiple regression analysis between the independent variable (social marketing) with its dimensions (product, pricing, promotion, and distribution) and the dependent variable (sustainable development goals). The result of the regression analysis is shown in Table (9).

Table (9): Results of multiple regression analysis on the impact of social marketing dimensions on sustainable development goals and results of hypothesis testing

Dependent variable	Coeffic. Correlat. R	R ²	F- test		Regression coefficient B		T-test		Decision
			F	P- Value			T	P-Value	
Sustainable Development Goals	0.707	0.50	94.605	0.001	Social product	0.173	2.841	0.005	Accepted
					Social Price	0.114	1.847	0.066	Rejet
					Social promotion	0.492	9.245	0.000	Accepted
					Social Distribution	0.105	1.973	0.049	Accepted

Source: SPSS V.25 program output.

The results of the F-test indicated that the regression model is significant, as the F value reached 94.605, with a significance level of 0.001, which is smaller than the significance level of 0.05. Moreover, Explanatory power of the model: The value of the coefficient of determination (R^2) reached 0.500, which indicates that the independent variable (social marketing) with its dimensions explains 50.0% of the variance that occurs in the dependent variable (sustainable development goals). We also note that The value of Beta reached 0.114, $B = (0.173 \ 0.105 \ 0.492)$, which is the value of the regression coefficients for the dimensions of the independent variable, social marketing, with its dimensions (product, pricing, promotion, distribution), respectively, and indicates the existence of a direct correlation between the dimensions of the independent variable and the dependent variable. The result of the (T-Test) also indicates that this relationship is significant and that the effect of (social marketing) with its dimensions is statistically significant, as the significance is less than (0.05), except for the pricing dimension, whose significance was (0.066).

5. Recommendations:

We conclude from this research paper the acceptance of the first sub-hypothesis, which states that there is a significant effect of the social product dimension on the sustainable development goals, The third sub-hypothesis, which states that there is a significant effect between social promotion and sustainable development goals, is accepted, as well as the fourth alternative hypothesis, which states that there is a significant effect between social distribution and sustainable development goals, but the second sub-hypothesis, which states that there is a significant effect between social product and sustainable development goals, will be rejected.

It can be said that the application of social marketing to business organizations, companies, universities, and colleges in the public and private sectors, according to the social marketing approach, requires a set of initiatives by the relevant parties, represented by proposing a set of practical recommendations included in the following points:

- Raising awareness among students and faculty members about social marketing and the need to adopt this modern marketing trend.
- Disseminate the social responsibility philosophy among organizational employees through training, publications, meetings, and other activities. Business organizations must also disseminate information related to their social responsibility to the public, highlighting their contribution to their internal and external environments, while clarifying the most important benefits that accrue to society from these activities.
- Published the concept of social responsibility among students in universities, colleges, and institutes through training, holding workshops, seminars, and interactive sessions. Universities must also disseminate information related to their responsibility to adopt the philosophy of sustainable development to the public, highlighting their contribution to their internal and external environment, while clarifying the most important benefits of these activities to society.
- Benefiting from successful international experiences in major countries and working to implement them on the ground in developing countries to motivate governments to achieve the sustainable development goals in all areas, thus ensuring the achievement of sustainable development in the long term.

Authors Declaration:

Conflicts of Interest: None

-We Hereby Confirm That All The Figures and Tables In The Manuscript Are Mine and Ours. Besides, The Figures and Images, which are Not Mine, Have Been Permitted Republication and Attached to The Manuscript.

- Ethical Clearance: The Research Was Approved by The Local Ethical Committee in The University.

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