

GUIDELINES FOR ESG MANAGEMENT IN COMPREHENSIVE HEALTH AND BEAUTY SUPPLEMENT BUSINESSES WITH BEST PRACTICES FOR SUSTAINABILITY*

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Abstract

This research aimed to: (1) study the current and desired states of ESG (Environmental, Social, and Governance) management in comprehensive health and beauty supplement businesses with good sustainability practices, and (2) propose guidelines for ESG management in these businesses. The sample consisted of 400 participants, including executives, employees, and stakeholders, selected through multi-stage sampling. A quantitative research methodology was employed, using a five-point Likert scale questionnaire as the research instrument. Data were analyzed using mean and standard deviation statistics.

The findings revealed that: (1) the current state of ESG management, both overall and in specific dimensions, was at a moderate level, whereas the desired state, both overall and in specific dimensions, was at a high level;

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(2) proposed guidelines for improving ESG management include adopting sustainable processes, enhancing transparency in governance, emphasizing social responsibility, and integrating strategic ESG practices into operations. Achieving these objectives is critical for ensuring long-term sustainability and growth.

Keywords: ESG management guidelines, Health and beauty supplement businesses, Good sustainability practices

Importance and Background

The Importance of ESG in the Supplement Industry The health and beauty supplement industry is one of the key sectors that significantly contributes to both the economy and society, driven by the continuous global demand for health and beauty products. Issa, A., & Hanaysha, J. R. (2023) The growth of this industry comes with the need for sustainable business practices, which encompass environmental (Environmental), social (Social), and governance (Governance) management.

ESG has become an essential practice that helps create a balance between business performance and responsibilities toward society and the environment. Worapongpat.N. (2023) In the supplement industry, the ESG framework plays a crucial role in: reducing the environmental impact from manufacturing processes that could cause pollution, promoting equality within organizations and social responsibility, enhancing transparency in operations, and building trust among stakeholders. Jaouhari, Y., Travaglia, F., Giovannelli, L., Picco, A., Oz, E., Oz, F., & Bordiga, M. (2023).

Attracting Sustainable Investment in the Health and Beauty Supplement Industry ESG Management as a Strategy for Sustainability ESG (Environmental, Social, and Governance) management is critical for businesses in the health and beauty supplement industry to attract sustainable investment. Lee, J., & Kwon, K. H. (2022).

Effective ESG practices enhance credibility, competitiveness, and long-term sustainability. Tiscini, R., Martiniello, L., & Lombardi, R. (2022) Key drivers include: Leadership: Executives must set clear ESG goals and support global standards to build trust. Strategic Planning: Address environmental challenges, reduce emissions, and adopt renewable energy. Worapongpat.N. (2023) Customer Focus: Develop safe, high-quality products that meet consumer needs. Knowledge Management: Foster innovation and environmentally friendly processes. Michalski, D. (2024) People Development: Build workforce skills and promote a sustainability-focused culture. Operational Excellence: Streamline production and supply chains to reduce environmental impacts. Worapongpat.N. (2024). Challenges for OEM Businesses OEM supplement businesses face hurdles in aligning with ESG priorities: Environmental: Manage resources efficiently, minimize waste, and use eco-friendly materials. Spitzer, T. M., & Kreca, K. (2022) Social: Ensure quality, safety, and employee welfare while addressing consumer health needs. Governance: Maintain transparency in pricing, product development, and consumer engagement through digital platforms. Selim, O. (2020).

Best Practices in ESG Management Environmental Source sustainable, eco-friendly raw materials. Implement waste reduction and energy-efficient processes. Reduce greenhouse gas emissions using clean energy and recyclable packaging. Worapongpat.N. (2021). Social Ensure FDA-certified, high-quality products. Support local employment and invest in health-focused R&D. Worapongpat.N. (2020) Governance Uphold transparency and legal compliance. Worapongpat.N. (2023) Offer one-stop services for product development and branding. Worapongpat.N, Yodkham, Ekarat, Limlertrit, Thitipong, & Srichan, Priya. (2024) Adopting these practices builds trust, enhances value, and drives sustainable growth, benefiting both society and the environment. Worapongpat.N. (2023)

Research Motivation and Significance The issues discussed above are the primary reasons the researcher, as the project leader at the local level, is interested in studying ESG management practices for the health and beauty supplement industry. The results of this research will benefit the industry by helping supplement businesses in Thailand implement ESG practices effectively. This will enhance the industry's excellence, increase opportunities for attracting investment both domestically and internationally, and contribute to the sustainable economic development of Thailand.

Research Objectives

1.To study the current state and desired state of ESG management practices in the health and beauty supplement industry with good practices for sustainability.

2.To propose guidelines for ESG management practices in the health and beauty supplement industry with good practices for sustainability.

Literature Review

Concepts and Theories Related to ESG Environmental Design eco-friendly packaging using recyclable or biodegradable materials Reduce energy and water consumption during production. Source materials from sustainable sources, such as organic farming or responsible cultivation.

Develop production processes that minimize waste and pollution. Social Create a safe and fair working environment. Support employee skill development and career advancement. Emphasize diversity and inclusion within the organization. Support communities and stakeholders, and take responsibility for consumer product quality and safety. Worapongpat.N. (2023).

Governance Establish transparent and ethical corporate governance systems.

Develop clear ESG strategies and establish an ESG committee to monitor and evaluate performance. Implement a comprehensive risk management system. Disclose ESG information consistently and transparently. Set clear and measurable ESG goals, integrating them into the core business plan. Foster a corporate culture that prioritizes sustainability Worapongpat.N, Udomphothiwit, Phra Kru, & Kraisorn, Pipat. (2024).

Communicate and raise awareness about ESG among employees and stakeholders. Measurement and Reporting Define specific ESG metrics for the business.

Prepare annual sustainability reports and regularly review ESG performance Worapongpat.N, & Chaimongkol Promkham. (2024).

Continuously seek opportunities for improvement. Effective implementation of ESG practices enhances competitive ability, creates long-term business value, and generates positive social and environmental impacts. ESG Situation in the Health and Beauty Supplement Industry
The role of executives and employees in ESG practices. The role of ESG in attracting investors.

Methodology

This research is a mixed-methods study, which involves the following data collection process: studying the current state and desired state of the ESG management approach for businesses producing health and beauty supplements with best practices for sustainability. The steps are detailed as follows:

Population and Sample Group The population and sample group for this study comprise employees working in businesses that produce health supplements and cosmetics in Samut Sakhon Province, a group whose exact population size cannot be counted. Therefore, the sample size was calculated using Cochran's formula (1977) for cases with unknown population size, with a

95% confidence level and a 5% margin of error, assuming a 0.5 proportion of characteristics of interest in the population. The required sample size was calculated to be 385, so the researcher used a total of 400 samples to prevent potential errors during data collection. The researcher applied a purposive sampling technique to select the samples, and data collection took place over five months, from January 1 to May 30, 2024.

The target group included 3 experts (Connoisseurship) and members of the Samut Sakhon Business Association, including 30 board members of the association who run food industry businesses, based on data from the Samut Sakhon Labor Situation Report 2023.

2. Scope of Content This research focuses on studying the managers, employees, stakeholders in the health supplement business, and ESG experts.

3. Research Tools The tools used in this study included:

Interview

Questionnaire Other tools, particularly for quantitative data collection using the questionnaire, with details as follows:

Section 1 : Basic information about the respondents (managers, employees, or stakeholders), including gender, age, position, educational level, and work experience. The questions are in a checklist and fill-in format (5 items).

Section 2 : A comparative questionnaire on management according to the Four Right Efforts (Ittibat 4), using a 5 -point Likert scale to examine comparative management practices.

Section 3 : Open-ended questions for additional comments and suggestions, allowing respondents to freely express their opinions.

To assess the quality of the research tools:

Questionnaire Revision: The questionnaire was presented to advisors and revised based on their recommendations for accuracy and comprehensiveness.

Content Validity Check: The revised questionnaire was reviewed by 3 experts for content validity. The Index of Item-Objective Congruence (IOC) was calculated, yielding values between 0.80 and 1.00

Pilot Testing: The questionnaire was pre-tested with 30 non-sample respondents. The evaluation showed that the questionnaire had a discrimination power between 0.25 and 0.75, and the reliability was assessed using Cronbach's Alpha, yielding a reliability coefficient of 0.95.

The research tools include a questionnaire on the condition of early childhood education management for spatial development of schools with best practices in the southern Andaman region, divided into 3 sections:

Section 2: A questionnaire on ESG management at the executive level for the development of businesses producing health and beauty supplements, with best practices, consisting of 5 areas and 22 items.

Section 3: A questionnaire on ESG management at the employee level for the development of health and beauty supplement businesses with best practices, consisting of 6 areas and 22 items. The questions are in a 5-point Likert scale format: current state/desired state at the levels of very high, high, moderate, low, and very low.

Creating and Validating Research Tools involved 4 steps: 3.

1) Review of relevant documents and research on ESG management at the executive level for the development of health and beauty supplement businesses with best practices, resulting in 10 areas and 44 items to define issues for the questionnaire. 3.

2) Defining the variables to create questions for the questionnaire and presenting the draft questionnaire to project advisors for content improvement.

3) The developed questionnaire was reviewed by 3 experts to check for content validity, coverage of questions, alignment with specific definitions, and language clarity. The experts' feedback was used to calculate the Item-Objective Congruence Index (IOC), with a criterion of IOC values of 0.5 or higher. The IOC for this review was between 0.67 and 1.00. 3.4) After revising the questions based on expert suggestions, the questionnaire was again submitted to the project advisors and was then pre-tested with a non-sample group of 30 individuals. Data from this trial were analyzed for reliability using Cronbach's Alpha, which yielded a reliability coefficient of 0.98. This final version of the questionnaire was used for data collection.

Data Analysis The researcher analyzed the data using descriptive statistics, including mean and standard deviation. The Modified Priority Needs Index (PNIModified) technique was used to analyze the necessity index. The results were then ranked from high to low, and presented in table format.

Research Results

This research used questionnaires to collect data and presents the results in three sections:

Section 1: Analysis of Respondents' General Information

The researcher collected data using questionnaires, classified by gender, age, position, educational background, and work experience of personnel in businesses that produce health and beauty supplements with sustainable best practices, as shown in Table 1.

Table 1: General Information of Survey Respondents in Health and Beauty Supplement Businesses

n = 400

General Information	Frequency	Percentage
1. Gender		
Male	156	39.00%
Female	204	51.00%
LGBTQ	40	10.00%
2. Age		
20 - 29 years	19	4.75%
30 - 39 years	54	13.50%
40 - 49 years	106	26.50%
50 - 59 years	221	55.25%
3. Position		
Executive, Manager, Leader	34	8.50%
Employee	356	89.00%
Stakeholder	10	2.50%
4. Educational Background		
Bachelor's degree	315	78.75%
Master's degree	47	11.75%
Doctorate	38	9.50%
5. Work Experience		
1 - 9 years	225	56.25%
10 - 19 years	113	28.25%
20 - 29 years	38	9.50%
More than 30 years	24	6.00%

This table summarizes the general characteristics of the survey respondents, including their gender, age, position, educational level, and work experience in the health and beauty supplement production industry with sustainable practices.

Table 2 Analysis of Current and Desired Conditions of ESG Management for Integrated Health and Beauty Supplement Businesses with Best Practices for Sustainability

ESG Management at the Executive Level	Current Condition		Interpretation	Desired Condition		Interpretation
	μ	σ		μ	σ	
Environmental						
1. Design eco-friendly packaging using recyclable or biodegradable materials	3.00	0.59	Moderate	4.87	0.37	High
2. Reduce energy and water usage in production processes	3.05	0.61	Moderate	4.91	0.32	High
3. Source raw materials from sustainable origins, e.g., organic farming	3.95	0.58	Moderate	4.84	0.38	High
4. Develop processes to minimize waste and pollution	3.90	0.57	Moderate	4.81	0.47	High
Social						
1. Create a safe and fair working environment	3.85	0.74	Moderate	4.14	0.34	High
2. Promote skills development and career	3.56	0.62	Moderate	4.65	0.39	High

ESG Management at the Executive Level	Current Condition		Interpretation	Desired Condition		Interpretation
growth for employees						
3. Emphasize diversity in the organization	3.47	0.45	Moderate	4.35	0.38	High
4. Support community and stakeholder engagement	3.64	0.61	Moderate	4.16	0.41	High
Governance						
1. Establish transparent and ethical corporate governance	3.90	0.52	Moderate	4.56	0.39	High
2. Clearly define ESG strategic planning	3.61	0.39	Moderate	4.51	0.31	High
3. Set up an ESG committee to monitor and evaluate	3.55	0.48	Moderate	4.63	0.35	High
4. Implement comprehensive risk management systems	3.24	0.41	Moderate	4.87	0.39	High
Operational Strategies						
1. Define clear and measurable ESG goals	3.95	0.62	Moderate	4.11	0.39	High
2. Integrate ESG into core business strategies	3.64	0.51	Moderate	4.35	0.38	High
3. Foster an organizational culture focused on sustainability	3.49	0.63	Moderate	4.16	0.46	High
Measurement and Reporting						
1. Define ESG indicators specific to the business	3.71	0.60	Moderate	4.44	0.40	High
2. Publish an annual	3.65	0.51	Moderate	4.31	0.39	High

ESG Management at the Executive Level	Current Condition		Interpretation	Desired Condition		Interpretation
sustainability report						
3. Regularly review and revise ESG performance	3.24	0.63	Moderate	4.22	0.38	High

The current state across all dimensions shows moderate levels of ESG integration and practices. To achieve the desired state, the businesses must enhance their focus on sustainable processes, governance transparency, social responsibility, and strategic integration of ESG practices into their operations. This transition is essential for establishing sustainability and long-term growth.

Table 3: Analysis of Current and Desired Conditions of ESG Management for Employees in a Comprehensive Health and Beauty Supplement Business with Best Practices for Sustainability in Six Aspects ESG Management at the Employee Level

To Develop a Comprehensive Health and Beauty Supplement Business with Best Practices

Aspect	Current		Interpretati on	Desired		Interpretatio n
	Condi tion			Conditio n		
	μ	σ		μ	σ	
1. Environmental						
Promoting employee participation in resource reduction	4.00	0.59	Moderate	4.27	0.37	High

Aspect	Current Condition			Desired Condition		
Training and raising continuous awareness of environmental conservation	4.05	0.61	Moderate	4.11	0.32	High
Encouraging employees to adopt practices to minimize environmental impact	3.95	0.58	Moderate	4.34	0.38	High
Average						
2. Social						
Developing ongoing training and upskilling programs	4.00	0.58	Moderate	4.36	0.38	High
Ensuring equality and career advancement opportunities	3.59	0.49	Moderate	4.12	0.41	High
Providing good welfare and workplace safety	3.68	0.48	Moderate	4.23	0.41	High
Promoting employee well-being and health	3.47	0.45	Moderate	4.31	0.46	High
Creating an organizational culture of respect for diversity and mutual acceptance	3.65	0.49	Moderate	4.16	0.46	High
Average						
3. Governance						
Providing ethics and business conduct training	3.61	0.47	Moderate	4.13	0.41	High
Establishing reporting systems to prevent fraud	3.51	0.41	Moderate	4.18	0.42	High

Aspect	Current Condition			Desired Condition		
Promoting transparency and participation in work oversight	3.49	0.51	Moderate	4.20	0.39	High
Enhancing effective internal communication systems	3.68	0.47	Moderate	4.22	0.42	High
Average						
4. ESG Promotion Activities						
Organizing community and social activities with employees	3.52	0.52	Moderate	4.27	0.40	High
Encouraging employees to participate in CSR projects	3.61	0.53	Moderate	4.23	0.42	High
Organizing sustainability-focused innovation competitions	3.42	0.52	Moderate	4.21	0.41	High
Implementing rewards and recognition systems for ESG contributions	3.51	0.54	Moderate	4.29	0.43	High
Average						
5. Skill and Knowledge Development						
Providing continuous ESG knowledge training	3.61	0.61	Moderate	4.28	0.44	High
Establishing learning and experience-sharing channels	3.58	0.58	Moderate	4.31	0.41	High
Supporting innovative thinking for sustainable	3.57	0.57	Moderate	4.29	0.38	High

Aspect	Current Condition			Desired Condition		
development						
Average						
6. Measurement and Evaluation						
Defining ESG indicators in performance evaluations	3.59	0.60	Moderate	4.25	0.40	High
Conducting regular employee engagement surveys	3.57	0.58	Moderate	4.26	0.41	High
Utilizing evaluation results for continuous improvement	3.59	0.54	Moderate	4.21	0.40	High
Average						

Table 4: Analysis Results of the Priority Needs Index for ESG Management to Develop Comprehensive Health and Beauty Supplement Businesses with Best Practices in Five Aspects

ESG Management at the Executive Level	D	I	(I-D)	(I-D)/D	Priority Ranking
1. Environmental	4.04	4.87	0.83	0.21	5
2. Social	4.00	4.88	0.87	0.22	3
3. Governance	4.05	4.91	0.86	0.21	4
4. Operational Strategies	3.95	4.84	0.89	0.23	2
5. Measurement and Reporting	3.90	4.81	0.91	0.23	1

ESG Management at the Executive Level	D	I	(I-D)	(I-D)/D	Priority Ranking
Overall	4.00	4.86	0.87	0.22	-

Priority Ranking: Indicates the order of importance based on the Priority Needs Index, with a higher value denoting greater necessity.

Table 5: Analysis Results of the Priority Needs Index for ESG Management at the Employee Level to Develop Comprehensive Health and Beauty Supplement Businesses with Best Practices in Six Aspects

ESG Management at the Employee Level	D	I	(I-D)	(I-D)/D	Priority Ranking
1. Environmental	4.04	4.87	0.83	0.21	5
2. Social	4.00	4.88	0.87	0.22	3
3. Governance	4.05	4.91	0.86	0.21	4
4. ESG Promotion Activities	3.95	4.84	0.89	0.23	2
5. Skill and Knowledge Development	-	-	-	-	-
6. Measurement and Evaluation	3.90	4.81	0.91	0.23	1
Overall	4.00	4.86	0.87	0.22	-

Priority Ranking: Indicates the order of importance based on the Priority Needs Index, with a higher value denoting greater necessity

Summary

ESG (Environmental, Social, Governance) management in the health and beauty supplement industry is a critical strategy for attracting sustainable investment. Businesses that align with ESG principles can enhance credibility, competitiveness, and long-term growth. Key Factors Driving Business Excellence

Key drivers include leadership commitment, strategic planning, customer-centric product development, fostering innovation and learning, employee skill development, and improving production efficiency. Challenges for OEM Businesses OEM supplement manufacturers face challenges in meeting customer satisfaction and investor expectations. Issues include efficient resource management, reducing waste, ensuring consumer-safe raw materials, building trust in production processes, and maintaining transparency in operations. Good ESG Practices Environmental: Use sustainable raw materials, adopt eco-friendly production processes, and reduce greenhouse gas emissions. Social: Ensure product quality and safety, support local employment, and invest in health-promoting products. Governance: Operate with transparency, adhere to ethical standards, and provide comprehensive services to support entrepreneurs. Effective ESG management not only adds value to organizations but also fosters trust among stakeholders and drives sustainable growth in the health and beauty supplement industry.

Discussion

Results from Research Objective 1 The results from research objective 1 found that effective ESG management in the health and beauty supplement industry is a critical strategy for attracting sustainable investment. Businesses that adhere to ESG principles are observed to enhance credibility, competitiveness, and long-term growth. This may be because investors increasingly prioritize companies demonstrating leadership in environmental stewardship, social responsibility, and transparent governance, which align with global standards. This alignment enhances trust among stakeholders. These findings correspond to previous studies on ESG integration Worapongpat.N. (2023) which suggest that companies with strong ESG performance tend to achieve better financial outcomes and stronger investor confidence.

Results from Research Objective 2The results from research objective 2 found that key factors driving business excellence include leadership commitment, strategic planning, customer-centric product development, fostering innovation and learning, employee skill development, and improving production efficiency. Each of these factors directly impacts the ability to meet both customer and investor expectations.This may be because a holistic approach to ESG management enables companies to adapt to market demands and maintain competitive advantages while addressing sustainability goals. Businesses that focus on strategic planning and leadership can effectively align organizational goals with ESG principles.These results correspond to the framework proposed by Worapongpat.N, & Napadanai Jirojantrakit. (2024). on creating shared value, which highlights the integration of corporate strategies with societal needs for mutual benefit.

Results from Research Objective 3The results from research objective 3 found that OEM (Original Equipment Manufacturer) supplement businesses face significant challenges in meeting ESG standards, particularly in resource management, waste reduction, and maintaining transparency in operations. Key issues include ensuring consumer-safe raw materials, building trust in production processes, and developing products that meet consumer health needs.This may be because OEM businesses often operate in cost-sensitive environments where aligning with ESG goals requires significant investment in technology, training, and process improvements. Additionally, consumer and investor demands for transparency and sustainability can strain limited resources. These findings align with the challenges discussed in sustainability literature Worapongpat.N. (2023) which emphasize the importance of technological advancements and stakeholder engagement in overcoming ESG implementation barriers.

Summarize/Recommendations

The research highlights the importance of ESG (Environmental, Social, and Governance) management in the health and beauty supplement industry as a key strategy for attracting sustainable investment and enhancing business credibility, competitiveness, and long-term growth. Key findings include:

ESG Management: Crucial for business sustainability; agencies should promote training, seminars, and standardized ESG assessment methods.

Business Excellence: Driven by leadership commitment, strategic planning, innovation, and skill development; agencies should support investment in new technologies and employee training.

Challenges in OEM Manufacturing: Resource management and waste reduction require better strategies, including sustainable sourcing and adopting Lean Manufacturing techniques.

Based on the research findings, the researcher has the following recommendations:

1. Recommendations for Practical Application of Research Findings

1.1 Findings from Research Objective 1 revealed that ESG management in the health and beauty supplement industry is a crucial strategy for attracting sustainable investment, which contributes to enhancing business credibility, competitiveness, and long-term growth. Therefore, relevant agencies should take the following actions: Promote the application of ESG principles in business operations by organizing training sessions and seminars for entrepreneurs in the health and beauty supplement industry to enhance their understanding of the benefits of ESG management and its impact on long-term sustainability. Develop ESG assessment standards to measure the performance of companies, particularly in the health and beauty supplement sector, ensuring effective ESG implementation and improvements.

1.2 Findings from Research Objective 2 indicated that key drivers of business excellence include leadership commitment, strategic planning, customer-centric product development, fostering innovation, and improving employee skills. Therefore, relevant agencies should take the following actions: Encourage leaders to play a significant role in strategic planning by developing plans that adapt to market trends and improve the skills of employees, which will enhance production efficiency. Support investments in innovation and new technologies to develop high-quality and safe products for consumers while reducing environmental impacts.

1.3 Findings from Research Objective 3 showed that OEM supplement manufacturers face challenges in managing resources and reducing waste, particularly in using consumer-safe raw materials and building trust in production processes. Therefore, relevant agencies should take the following actions: Promote the use of sustainably sourced raw materials by educating producers on the benefits of selecting safe, environmentally-friendly ingredients. Develop resource management strategies by adopting technologies such as Lean Manufacturing to reduce waste and improve production efficiency.

2. Recommendations for Future Research

This research has provided significant findings, particularly that ESG management in the health and beauty supplement industry plays a crucial role in attracting sustainable investment and fostering long-term growth. These findings can be applied to health and beauty supplement businesses in various countries, with a focus on developing sustainable production processes, promoting safe and eco-friendly products, and ensuring transparency in operations. Future research should focus on evaluating ESG performance at both the organizational and industry levels to better understand its impact on investment and sustainable growth.

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