

Ecole des Hautes Etudes Commerciales



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of Master's degree in Business sciences
Option: Management and Entrepreneurship**

Theme:

**The Impact of Sustainable Operations on Value Creation in the
Food Industry
Case of Study: Amor Benamor Mills, Guelma**

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Abstract:

The food industry represents an important economic activity, not only because it is related to the basic physiological processes required for human survival, but also because of the considerable losses from wasted natural resources identified in food production. Thus, this industry generates significant environmental, social, and economic impacts, ranking it among the sectors with the highest global greenhouse gas emissions. Accordingly, this thesis aims to identify the sustainable practices adopted by organizations in the food industry.

Sustainability in the food industry is a field full of opportunities for deeper investigations in order to understand how to use power and influence in a proper way to develop business in a responsible way, through an approach where all can win. Thus, new insights into sustainable operations can ensure business sustainability.

This study shows the relationship between sustainable operations and value creation among industrial companies in the food sector, where our study has shown important results, that the primary objective of the organization is to create value and the adoption of environmental performance contributes to creating value for the organization, its environment and the society to which it belongs.

Keywords: sustainable operations, food industry, food production, environmental impacts, sustainable practices, value creation.

Résumé:

L'industrie alimentaire représente une filière économique importante, non seulement parce qu'elle est liée aux processus physiologiques de base nécessaires à la survie humaine, mais aussi en raison des pertes considérables liées aux ressources naturelles gaspillées dans la production alimentaire. Ainsi, cette industrie génère d'importants impacts environnementaux, sociaux et économiques, la plaçant parmi les secteurs ayant les plus fortes émissions mondiales de gaz à effet de serre. En conséquence, ce mémoire vise à identifier les pratiques durables adoptées par les organisations de l'industrie alimentaire.

La durabilité dans l'industrie alimentaire offre de nombreuses opportunités pour des investigations approfondies afin de comprendre comment utiliser le pouvoir et l'influence de manière responsable pour développer les entreprises de manière durable, dans une approche où tout le monde peut gagner. Ainsi, de nouvelles perspectives sur les opérations durables peuvent garantir la pérennité des entreprises.

Cette étude montre la relation entre les opérations durables et la création de valeur chez les entreprises industrielles du secteur alimentaire, où notre étude a montré des résultats importants, que l'objectif principal de l'organisation est de créer de la valeur et que l'adoption de la performance environnementale contribue à créer de la valeur pour l'organisation, son environnement et la société à laquelle il appartient.

Mots-clés : opérations durables, industrie alimentaire, production alimentaire, impacts environnementaux, pratiques durables, création de valeur.

ملخص:

صناعة الغذاء تمثل نشاطاً اقتصادياً مهماً، ليس فقط لأنها مرتبطة بالعمليات الفسيولوجية الأساسية المطلوبة لبقاء بسبب الخسائر الكبيرة الناجمة عن إهدار الموارد الطبيعية المحددة في إنتاج الغذاء. وبالتالي، تولد الإنسان، ولكن أيضاً هذه الصناعة تأثيرات بيئية واجتماعية واقتصادية كبيرة، مما يجعلها تحتل مرتبة بين القطاعات التي تُصدر أعلى انبعاثات غازات الاحتباس الحراري على مستوى العالم. وبناءً على ذلك، تهدف هذه الرسالة إلى تحديد الممارسات المستدامة التي تعتمد عليها المؤسسات في صناعة الغذاء

الاستدامة في صناعة الغذاء هي مجال مليء بالفرص لإجراء تحقيقات أعمق من أجل فهم كيفية استخدام القوة والتأثير بطريقة مناسبة لتطوير الأعمال بطريقة مسؤولة، من خلال نهج يمكن للجميع أن يكون الفائز فيه. وبالتالي، يمكن أن تضمن الرؤى الجديدة فيما يتعلق بالعمليات المستدامة استدامة الأعمال

توضح هذه الدراسة العلاقة بين العمليات المستدامة وخلق القيمة بين الشركات الصناعية في قطاع الغذاء حيث أظهرت دراستنا نتائج مهمة، أن الهدف الأساسي للمنظمة هو خلق القيمة واعتماد الأداء البيئي يساهم في خلق قيمة للمنظمة وبيئتها والمجتمع الذي تنتمي إليه.

الكلمات الرئيسية: العمليات المستدامة، صناعة الغذاء، إنتاج الغذاء، التأثيرات البيئية، الممارسات المستدامة، خلق القيمة

Dedication:

To my parents, and for all who seek knowledge on the other side of the mirror.

Acknowledgements:

First, I express my gratitude to God for giving me the patience and courage to successfully complete this work.

Well, there is no “one person's” job.

Behind Him, there are a number of researchers, mentors and professors who contributed to the foundations of his work.

Close to Him, there are also those who encourage, help and guide his purposes.

This work is not different from all the others.

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Pr. Fella OUAHDI, contributed for the conclusion of my objective with her patience, partnership and a big sense of collaboration.

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the only thing left to do is to say to all of them, a recognized “Thank

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List of tables:

Table 01: The environmental and economic practices	12
Table 02: The key dates of the history	46
Table 03: Technical sheet of Amor Benamor sheet.....	47
Table 04: The SWOT analyse of Amor Benamor Mills.....	50
Table 05: The most important competitors of the Amor Benamor Mills.....	51
Table 06: The details of the interviewees.....	58
Table 07: The interview guide.....	58
Table 08: The calculation of the Value Added.....	62
Table 09: The calculation of EVA.....	62
Table 10: The results of EVA.....	62

List of figures:

Figure 01: Product life cycle.....	19
Figure 02: Dimensions of sustainable operations.....	22
Figure 03: Sources and Outcomes of value creation.....	30
Figure 04: The dimensions of value creation.....	32
Figure 05: The organizational chart of Amor Benamor Mills	48
Figure 06: Organizational chart of QHSE department.....	53
Figure 07: Illustration of various methods of research.....	56
Figure 08: The process of maintaining sustainability.....	57
Figure 09: Presentation of the quantity of production.....	60
Figure 10: Presentation of the quantity of the waste sent to LANDFILL CENTER CLASS and the quantity of the waste sold.....	61

List of annexes:

Annex N°01: The interview guidance.....	83
Annex N°02: Table of a necessary information to calculate EVA.....	84
Annex N°03: The quantity of waste sent to the LANDFILL and the quantity of waste sold.....	85
Annex N°04: The quantity of production from the year 2019 till 2023.....	86

Abbreviations:

WCED: World Commission on Environment and Development

SD: Sustainable Development

FAO: The Food and Agriculture Organization

UV: Use Value

EV: Exchange Value

ROIC: Return On Invested Capital

WACC: Weighted Average Cost of Capital

DNA: Deoxyribonucleic Acid

VA: Added Value

EVA: Economic Added Value

CA: Revenue of the Company

CAB: Cannery Amor Benamor

MAB: Mills of Amor Benamor

ISO: International Organization for Standardization

QHSE: Quality, Health, Security, Environment

Summary

General introduction.....	02
Chapter 01: Theoretical framework of sustainable operations.....	06
Introduction of chapter.....	06
Section 01: Basic concepts of sustainable operations.....	07
- The origins of sustainable development.....	07
- Concepts and definitions	09
Section 02: The integration of sustainable operations.....	15
- Algeria's effort to support sustainability.....	15
- The mechanism for integrating sustainable operations into the company's Activity.....	16
- The relationship between sustainable operations and product life cycle.....	18
Section 03: The advantages of integrating sustainable operation into the company's activity.....	21
- Dimensions of sustainable operations.....	21
- The advantages that companies get by following to the environmental orientation..	23
Conclusion of chapter	26
Chapter 02: Creating company's value.....	28
Introduction of chapter.....	28
Section 01: Basic concepts about value creation.....	29
- Concepts and definitions.....	29
- The process of value creation.....	30
- Dimensions of value creation.....	32
Section 02: Value creation and company	34
- Value creation in business.....	34
- The types of value created by the company.....	34
- The importance of value creation.....	37

Section 03: Evaluating sustainable operation and their relationship to value creation.....	39
- The factors that contributed to the development of company’s interest in food industry in using sustainable operation.....	39
- The impact of sustainable operations on value creation in food industry.....	41
Conclusion of chapter	43
Chapter 03: A field study of Semolina Amor Benamor.....	45
Introduction of chapter.....	45
Section 01: Presentation of Semolina Amor Benamor.....	46
Section 02: Presentation of the methodology of the practical study.....	56
Section 03: Discussion of the results	60
Conclusion of chapter.....	71
General conclusion	73

General introduction

General introduction

General introduction:

The economic institution, regardless of its type, aims to maximize its value for the benefit of its owners (shareholders) or all interested parties. The continuity of the institution depends on its ability to create value, as this is the fundamental goal it relies upon. However, the pursuit of this goal by industrial companies, in particular, leads to a set of negative environmental impacts, such as polluting various natural resources (water, air, soil).

It is essential for the company to maximize shareholder wealth or create value while improving its environmental performance because in recent years, the global emphasis on sustainability field and has been growing rapidly as it gains importance in various sectors of the economy.

As a result of these new trends in sustainability, the corporate sector has been under pressure to adapt to new market demands and trends. The increasing value being placed on these issues in the corporate world, whether they fall within the environmental, social or economic context, has become a competitive factor that influences the strategies companies adopt and the way they position themselves, attributing companies with new roles and responsibilities.

These organisations must contribute towards a reduction in environmental impacts. Thus, in order to reformulate their market performance, companies began to incorporate concepts and trends in sustainability.

Relevant to the aim of meeting sustainability requirements is the observation that the food global production and consumption has led to an increase in the natural resources consumption such as carbon, water and energy.

All economic activity, as in the case of the food industry, depends on the flow of materials, energy and production operations that generate environmental, social and economic impacts.

In the food industry this is further aggravated by the issue of population growth and represents an activity essential for survival also where consumers become more conscious of their environmental footprint.

Companies are under pressure to adopt sustainable practices. This shift towards sustainability has the potential to create value for both the companies and the consumers. However, the impact of sustainable operations on value creation in the food industry remains largely unexplored.

General introduction

This thesis aims to investigate the impact of sustainable operations on value creation in the food industry, focusing on the case of Amor Benamor Mills. Because Amor Benamor Mills, has adopted various sustainable practices in its manufacturing process. However, the impact of these sustainable operations on value creation remains unclear.

Our reasons for choosing the topic:

- The importance of the topic, especially for economic organizations.
- The subject of the study has piqued our curiosity, motivating us to explore the extent to which economic organizations are invested in environmental concerns.

The significance of this study lies in its exploration of the impact of sustainable operation on improving value creation in the food industry. By examining this relationship, we can obtain valuable insights into how implementing sustainable practices can contribute to the overall success and profitability of businesses in the food sector. This research aims to fill a gap in the existing literature and provide practical recommendations for food industry professionals.

To do so our main research question is as follows:

What is the impact of sustainable operations on improving value creation in food industry?

Our research work aims to investigate the following questions:

Q1: Does Amor Benamor adopt sustainable practices?

Q2: What are the most important sustainable practices adopted by Amor Benamor Mills?

Q3: Do the implementation of sustainable practices improve the quality of value creation?

Research hypotheses:

To address these questions, we have formulated the following three hypotheses:

H1: Yes, Amor Benamor adopts sustainable practices.

H2: Amor Benamor strives to reduce waste by recycling and pollution by using machines equipped with filters.

H3: The implementation of sustainable practices has improved the value creation of MAB.

Work methodology:

General introduction

We followed a descriptive and analytical approach, descriptive in order to clarify the process for integrating the practices that aimed to maintain sustainability into the company, the analytical part is to establish the relationship between sustainability and value creation.

To address these questions and confirm or refute the hypotheses, we adopted the following:

Methodology in the first chapter is entitled “theoretical framework of sustainable operations”. We present and discuss the general concepts and notions related to sustainable development and the sustainability in food industry in the first section. Subsequently, we explore the Algeria’s effort to support sustainability. Finally, we examine the dimensions of sustainable operations and the advantages that can be achieved.

In the second chapter with the title “the contribution of sustainable operation in creating company’s value” we focus on the basic concepts of value creation, it’s process and dimensions. Next, we delve into the connection between the company and value creation by addressing the types of value created by the company and the importance of value creation. Lastly, we explore the impact of sustainable operations on value creation.

The method adopted in the third chapter through the case study Amor Benamor Mills is as follows:

We used a three interview guides with the responsible for the production of the semolina, pasta and couscous, the QHSE responsible (quality, health, security and environment), and with the Human Resources Manager as well.

We did a certain documentary study, finally we measured an indicator to evaluate the efficiency of the company in creating value under the using of the sustainable operations.

Chapter 01: Theoretical framework of sustainable operations

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Chapter 01: Theoretical framework of sustainable operations.

In recent years, the global emphasis on sustainability has significantly influenced business operations across various industries. This trend is particularly pronounced in the food industry, where consumers have become more conscious of their environmental footprint. As a result, companies are under increasing pressure to adopt sustainable practices. This shift towards sustainability not only aligns with societal expectations but also has the potential to create value for both companies and consumers.

In this chapter, we delve into the fundamental concepts of sustainable operations, explore Algeria's efforts to support sustainability, and analyse the integration of sustainable practices within company activities. We also examine the delicate balance between sustainability and business success.

Chapter 01: Theoretical framework of sustainable operations

Section 01: Basic concepts of sustainable development

The concept of sustainability revolves around the long-term duration of an action, extending into the future. It embodies humanity's continuous aim to ensure its own well-being within the Earth's finite ecosystem. In this section, we explore the origins of sustainable development and define key concepts related to sustainability.

1-1 The origins of sustainable development:

The development of the concept of sustainable development (SD) required significant time and effort over the course of many years the timeline is as follows:¹

On October 5th 1948, the International Union for the Protection of Nature was founded-that changed its name to International Union for Conservation of Nature and natural resources in 1956-which aims to encourage the companies to use rationally the nature's resources.

- On June 30th 1962, the "Silent Spring" was published by Rachel Carson which treated the relation and interconnections between the social well-being, the environment, and the economy.
- In 1968, Paul Ehrlich addressed the connection between resource exploitation, human population, and the environment in his book "Population Bomb". The "Club of Rome" was founded by Aurelio Peccei, to discuss the correlations between the factors: population, resource exploitation, human, environmental damage, natural resource usage, and food consumption. The Intergovernmental Conference of Experts on the Scientific Basis for Rational Use and Conservation of the Resources of the Biosphere was held in Paris to dispute on the concept of "Sustainable Development".
- In 1969, the National Environmental Policy Act, the first national agency for the protection of the environment, discusses the evaluation of the environmental impact.
- In 1971, the creation of the International Institute for Environmental and Development

¹ SERRAT. (Olivier): World sustainable development timeline, ASIAN DEVELOPMENT BANK, March, 2012

Chapter 01: Theoretical framework of sustainable operations

sheds light on the importance of progressing economically without damaging the environmental resource base. The impact of human activity on Biosphere has been clarified by Barbara Ward and René Dubos in their book “Only One Earth”.

- In 1980, the term “Sustainable development” was inserted on the international policy for the first time.
- In 1983, the relation between the environment, technology, and people was treated after the creation of the Development Alternatives.
- The World Commission on Environment and Development analyses the interconnections between the issues of the four factors: society, environment, economy, and culture in 1987.
- The term green economy was first introduced in the “blueprint for a Green Economy” report in 1989.
- In June 1993, the United States President’s Council on Sustainable Development was created to follow up the progress of the sustainable development. The first version of ISO 14001 was published in 1996 by the International Standards Organization in order to identify the requirements of environmental management system that the companies should follow to protect the environment.
- In 2002, the guidelines of measuring the environmental, economic, and social impacts of the organisation’s activities were introduced in the Global Reporting Initiatives.
- The United Nations Decade of Education for Sustainable Development was published in 2005, to improve the educational resource on the sustainable development in 10 years.
- In 2008, the notions of green economy started to get involved and the green growth became a new objective.
- In 2013, the International Standards Organisation suggested the ISO 45001, that sets instructions of the occupational safety and health management system to improve the human well-being.
- The 2030 Agenda for Sustainable Development was first adopted on September 25-27th,

Chapter 01: Theoretical framework of sustainable operations

2015 in New York in order to achieve its 17 goals until 2030.

- the COVID 19 pandemic in 2020 has disrupted progress towards achieving the goals of the 2030 Agenda for Sustainable Development where the international poverty line has increased for the s time since 2000.

➤ **The main dates of sustainable development:**

In the following, the main dates of sustainable development will be treated.

1987: Bruntland Report (Prime Minister of Norway).

1989: The term green economy was first introduced in the “blueprint for a Green Economy” report

1996: The first version of ISO 14001 was published by the International Standards Organization

2002: Johannesburg Conference.

2005: The environmental charter.

2008: The Greenall of the Environment.

1-2 Concepts and definitions:

a) Notions:

Green/sustainable practices:

A summary of all practices that businesses employ in order to be sustainable.

Sustainability:

A form of resource management that seeks to minimise wastage of resources and operates with the need of future generations in mind. Sustainability can also refer to the efforts of minimising the negative social impact of firms.

Sustainable sourcing:

The application of a sustainable mind-set to a firm’s sourcing activities. Can refer to various activities in the food business.

Chapter 01: Theoretical framework of sustainable operations

b) Definition of the sustainable development:

According to Report of the World Commission on Environment and Development: Our Common Future “*Sustainable development is a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development; and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations¹*”.

The classical definition of sustainable development in a general context is defined as a “*Development that meets the needs of the present without compromising the ability of future generations to meet their own needs²*”. In other words, it implies that development plays a vital role in satisfying human needs and enhancing the quality of life. However, for sustainable development to be attained, it is important to use limited resources of the society, including human, natural and economic resources, in a more efficient and environmentally friendly manner. This approach guarantees that the needs of both present and future generations are met, while preserving the integrity of the environment.

In 2013, Ivascu L defines the sustainable development as: “*Sustainable development can be defined as maintaining system stability by developing a balance of responsibilities: economic, social, environmental and technological support technique without compromising the needs of future generations³*”.

Based on the definitions given, sustainable development implies a system that calls for the rational exploitation of natural resources and strives to ensure their preservation over a long period while meeting the demands of future generations.

Therefore, sustainable development ensures equity between generations, where present generations are responsible for safeguarding the welfare of future generations.

¹World Commission on Environment and Development: Report of the World Commission on Environment and Development, UN. Secretary-General, August 4th, 1987 (oxford: oxford university press)

² Ibid

³ DURAN. (Dan Cristian), GOGAN. (Luminita Maria), ARTEN. (Alin), DURAN. (Vasile): The components of sustainable development - a possible approach, 4th World Conference on Business, Economics and Management, WCBEM, Published by Elsevier B. V., 2015

Chapter 01: Theoretical framework of sustainable operations

c) **The sustainability in food industry:**

The food sector represents an important and indispensable group of consumer items, because human survival is largely dependent on it. The food industry, like others, also requires natural inputs such as land, water, and energy, and it is faced with increasing worldwide demand, presenting a challenge for sustainability in this sector.

Research conducted by the Food and Agriculture Organization (FAO) shows that millions of tons of food are wasted each year, including both consumption and production losses. These production losses amount to wasted resources, including water, energy, land, and capital, which do not generate value.

The relationship between food and sustainability dates back to the 1980s when sustainable development became a comprehensive political objective for all nations. In some markets and organisations, sustainability issues have become a high priority and an important competitive factor¹. As a result, the area for sustainable food projects development has expanded rapidly and this emerging field based on market demands and compliance with the law, has forced organisations in the sector to adapt by reformulating their production processes and adopting sustainable practices².

The food sector plays a critical role in human survival, relying on essential natural resources such as land, water, and energy. Unfortunately, millions of tons of food are wasted annually, resulting in significant resource losses. Consequently, sustainability has become a top priority for markets and organizations, prompting the adoption of sustainable practices in food production.

d) **Definition of sustainable operations:**

Green/sustainable operation are “*actions that reduce the impact on the environment, such as eco-purchasing or recycling*”³.

¹ BELZ. F.M, SCHMIDT-RIEDIGER. B, " Marketing strategies in the age of sustainable development: evidence from the food industry", in, Business Strategy and the Environment, Vol. 19, No. 7, 2010, pp.401–416

² BARLETT. P.F. 'Campus sustainable food projects: critique and engagement', in, American Anthropologist, Vol. 113, No. 1,2011, pp.101–115

³ WOLFE. K.L, SHANKLIN. C.W, Environmental practices and Management Concerns of conference Center Administrators. Journal of hospitality and Tourism Research 25(2), 2001, P209.

Chapter 01: Theoretical framework of sustainable operations

Building on this definition, one can find a number of practices that the food industry could embrace to reduce their environmental impacts. Apart from the two examples already included in the definition, investments targeting the reduction of energy can be mentioned.

In the food sector or any other sector, sustainability means that the company needs to be economically successful in the long run, but with a business model that allows the following generations to enjoy the same standards we have today.

Regarding industry-specific definitions or trends, one can see that there is a wide array of practices that can make the food industry more sustainable or greener. Sustainability and green practices in the food industry are associated with several activities.

Table 01: The environmental and economic practices

Practices	Environment
Packaging Reduction	Internal
Certifications	Internal
Elimination of leaks	Internal
Improved energy Efficiency	Supply chain
Improved transport Efficiency	Supply chain
Reduction of the Energy consumption	Internal/supply chain
Reduction of water Consumption	Internal/supply chain
Recycling/reuse	Internal /supply chain
Reduction of CO2 Emissions	Internal
Reduction of waste	Internal/supply chain
Development of clean technologies	Internal

Source: TAINAN. N, EVERTON. D, SERGIO. E, DA COSTA.G, EDSON. P, "Sustainable operations management: practices and measures in the food industry", in, *Advanced Operations Management*, No. 4, 2014, Pontifical Catholic University of Parana, Brazil, P344.

Chapter 01: Theoretical framework of sustainable operations

The table categorizes practices into environmental and economic aspects that a firm might focus on and internal – supply chain perspective:

Packaging reduction has an internal focus since a firm may reduce the waste and consumption of resources, and, arguably, it is beneficial to the environment. **Certifications** is an internal factor as certification shows the organization's need to comply with environmental issues spots. However, it is external as well since the firm would improve its market reputation and customers' trust that leads to more sales.

Elimination of leaks either water or chemical is necessary to protect the environment from any harm. This can be considered as an internal practice as it relates to the efficiency of the organization's operations and the management of risks to cut resource losses while avoiding environmental damage in the process.

Improved energy efficiency Required energy efficacy throughout the entire supply chain reduces the organization's overall impact on the environment. This includes better energy usage during various production, transit, and distribution phases, which lead to a decrease in energy release and conservation of resources.

improving supply chain efficiency saves money by reducing fuel usage and streamlining logistics operations that leads to minimize energy usage involves a combination of internal practices and supply chain optimization.

Recycling, reusing resources and **Conserving water** play a crucial role in reducing waste and advancing circular economy concepts.

To successfully implement **reduction of waste** and **CO2 Emissions** both internal mechanisms and supply chain interactions are necessary. Internal efforts to reduce carbon dioxide emissions directly contribute to climate change mitigation. These efforts involve deploying energy-efficient technologies, streamlining operations, and incorporating cleaner energy sources within the organization. Investing in clean technology demonstrates the organization's commitment to innovation and environmental stewardship. By internally developing and implementing cleaner technology, the firm can reduce its environmental footprint and potentially gain a competitive advantage in the market

In summary, the table offers a comprehensive view of environmental and economic policies. It emphasizes the significance of internal initiatives within the organization and the need for collaboration with the supply chain to achieve sustainability goals.

Chapter 01: Theoretical framework of sustainable operations

1-3 Measurement of sustainable development:

According to Robert there are two levels of concepts and tools for measuring transition towards sustainable development. Firstly, metrics can be used to test the relevance, quality and quantity of activities to ensure they are aligned with sustainable development. Examples are rate of recycling and purity of recycled fractions.

Secondly, metrics can be performed on specific impacts in nature. Examples are indices on global warming potential of gases and relative impact on the ozone layer from various chemicals. Due to the complexity of the system, metrics of the first kind are generally more relevant from a strategic point of view¹.

In a simplified manner the first level could be seen as measuring process output, and the second level as impacts of the output or even stakeholder satisfaction. In general, an indicator is something that provides useful information about a system.

When attempting to measure sustainable development the indicators should be relevant, understandable for the users, limited in number and adaptable to future developments. Necessary data should be readily available, of known quality, adequately documented and updated at regular intervals². Ideally the indicators should also show links between the different goals of sustainable development³. Rao describes a division in driving force, state and response indicators used for measuring sustainable development. The driving force could be interpreted as the process output, the state indicator as the result of the output and the response indicator as the measures taken to handle problems caused by the output⁴.

¹ ROBERT. K-H, "Tools and concepts for sustainable development, how do they relate to a general framework for sustainable development and to each other?", journal of cleaner production, vol 08, 2000, PP 243-254.

² GARVARE. R, Process Management and Sustainable Development in a Quality Perspective- Implementation and Measurement Related to Small and Medium Sized Enterprises, Doctoral Thesis, Division of Quality Technology & Statistics, Department of Business Administration and Social Science Division of Quality Technology and Statistics, Luleå University of Technology, Sweden, 2002, P33.

³ FARRE. A. & HART. M. "What does sustainability really mean? The search for useful indicators", in, Environment, vol.20, no.9, 1998, pp.4-16

⁴ GARVARE. R, opcit, P 33.

Chapter 01: Theoretical framework of sustainable operations

Section 02: The integration of sustainable operations

The protection and preservation of the environment is a global responsibility, and this has been clearly highlighted in the efforts of the United Nations Organization, which has played an important role in consolidating of the human right to live and enjoy a safe, clean and pollution-free environment, and this has led many countries, including Algeria, to reconsider their development policies and move towards encouraging organizations to commit to environmental protection. And this is what we will discuss in this section.

2-1 Algeria's effort to support sustainability:

The use of environmental law in the priorities of the global community was not known, but with the kinds of damage caused by industrial advancements, population explosion, and further pollution of environmental aspects up to what is called global warming, protection and conservation of the environment has become a priority. In this respect, Algeria has set up many agencies, including the creation of the National Environmental Protection Commission in 1975, followed by the designation of a minister to deal with environmental issues, and several committees, such as national or local committees, to fight animal-borne diseases and the National Committee for waterborne diseases. Later, through "Rio de Janeiro 1992," there was many Organs, such as the Supreme Council for Environment and sustainable development, and the National Observatory for Environment and development, National Center for Clean Technology, High Coast Conservancy¹, In addition to the National Waste Agency, which collects all information related to waste and is available on the National Waste Management System, which is an information base that is constantly updated, this information is directed to people and institutions involved in waste management.

In terms of environmental protection measures, Algeria has published a set of environmental laws that cover the environmental field from every angle and strive to safeguard and maintain the environment, the most important of which are as follows²:

- Law No. 19-01 on Waste Management and control⁴
- Law No. 20-01 on the establishment and development of the territory⁴
- Law No 02-02 on the protection, development and preparation of the coast⁴

حمادي (عبد المالك), البيئة في الجزائر-الوضع والجهود الحامية, مجلة افاق العلوم, جامعة الجلفة, مارس 2017, ص198.¹
جبار (خلود), دور الإدارة البيئية في تحسين الأداء البيئي للمؤسسة الاقتصادية, مذكرة ماستر, قسم علوم التسيير, تخصص إدارة اعمال, كلية العلوم الاقتصادية والتجارية وعلوم التسيير, قالمة, 2022/2021, ص ص 63,64.

Chapter 01: Theoretical framework of sustainable operations

- **Law No 10-03** on Environmental Protection in the framework of sustainable development

In addition to the previous laws, we mention other legislative texts in the same context, which are:

- Executive Decree No. 06-198 of May 31, 2006, which regulates the regulation applied to institutions classified for Environmental Protection;

- Executive Decree No. 07-144 of May 19, 2007 defines the list of facilities classified for Environmental Protection;

- Executive Decree No. 07-145 of May 19, 2007, defines the scope of application, content and methods of approval of the study and summary of the impact on the environment;

- Executive Decree No. 09-336 of October 20, 2009 concerning the fee on activities polluting or dangerous to the environment;

- Executive Decree No. 93-184 of July 27, 1992 regulates noise generation, and according to Article 09, it has been stated that the mechanisms used in workshops equipped with explosion-proof or internal-ignition engines, as well as concrete casters, Hammers, generators of electricity of great power, pneumatic compressors complexes and compressor pumps, must be equipped with a silencer or noise reduction device when used at a distance of less than 50 meters from shops with residential use or from workplaces;

- Executive decree 06-138 of April 15, 2006, regulating emissions of gas, smoke, liquid and solid waste, as well as the conditions for their control;

- Executive decree 07-299 of September 27, 2007, specifying the procedure for applying the supplementary charge for emissions into the air of an industrial source;

- Executive decree 07-300 of September 27, 2007, specifying the procedure for applying the supplementary fee for industrial wastewater

2-2 The mechanism for integrating sustainable operations into the company's activity:

In today's environmentally conscious world, **incorporating sustainability practices** into your business operations is no longer just a trend, it's a necessity. Not only does it benefit the environment, but it can also **enhance your brand image, attract and retain talent, and even**

Chapter 01: Theoretical framework of sustainable operations

lead to cost savings. Here's a comprehensive guide to help you get started on your sustainability journey¹:

1. Assess Your Current Impact:

- **Energy Consumption:** Conduct an energy audit to identify areas of high consumption. Look for opportunities to switch to energy-efficient lighting.
- **Waste Generation:** Analyse your waste streams and identify opportunities for reduction, reuse, and recycling. Explore composting options for organic waste and responsible disposal of e-waste and hazardous materials.
- **Supply Chain:** Evaluate the environmental practices of your suppliers. Partner with vendors committed to sustainability practices like using recycled materials or minimizing their carbon footprint.

2. Set SMART Sustainability Goals:

- **Specific:** Clearly define your sustainability goals, be it reducing energy consumption by 10% or achieving zero waste to landfill.
- **Measurable:** Establish metrics to track your progress, such as kilowatt-hours saved or tons of waste diverted.
- **Attainable:** Set realistic goals that are achievable within a set timeframe.
- **Relevant:** Ensure your goals align with your overall business objectives and values.
- **Time-bound:** Define a specific deadline for achieving your goals.

3. Implement Sustainable Practices:

- **Reduce Paper Usage:** Encourage digital communication, double-sided printing, and use recycled paper products.
- **Embrace Green Transportation:** Opt for fuel-efficient vehicles, promote carpooling or cycling, and explore electric vehicle options for your fleet.
- **Conserve Water:** Install water-efficient fixtures, implement rainwater harvesting systems, and educate employees on water conservation practices.

¹ https://www.linkedin.com/pulse/how-implement-sustainability-practices-my-business-himanshu-patni-tlnuc?trk=article-ssr-frontend-pulse_more-articles_related-content-card consulted on 17/03/2024 at 15h27

Chapter 01: Theoretical framework of sustainable operations

- **Promote Sustainable Packaging:** Utilize eco-friendly packaging materials like recycled cardboard, compostable options, and minimal packaging where possible.
- **Invest in Renewable Energy:** Consider installing solar panels, wind turbines, or purchasing renewable energy credits to offset your carbon footprint.
- **Support Local and Sustainable Suppliers:** Partner with local businesses that prioritize sustainability practices and reduce your carbon footprint associated with transportation.

4. Engage Your Employees and Customers:

- **Raise Awareness:** Conduct training sessions to educate employees about your sustainability initiatives and encourage their participation.
- **Incentivize Sustainable Behavior:** Implement reward programs for employees who adopt eco-friendly practices.
- **Promote Your Sustainability Efforts:** Communicate your sustainability initiatives to your customers through various channels, showcasing your commitment to environmental responsibility.

2-3 The relationship between product life cycle and sustainable operations:

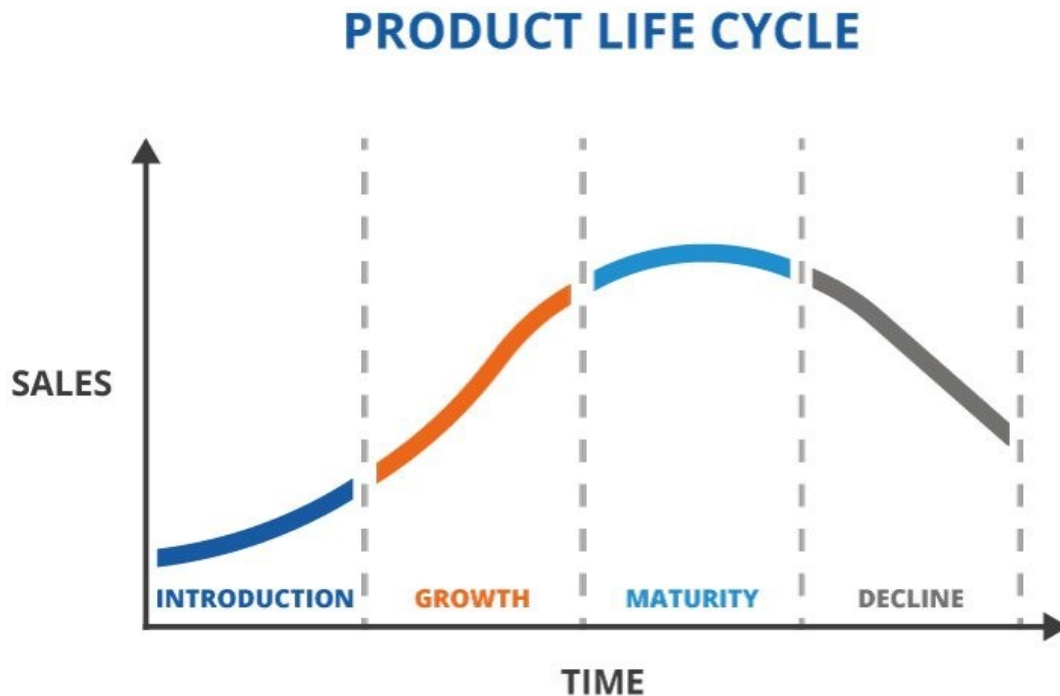
The relationship between sustainable operations and product life cycles is crucial for attaining a company's overall sustainability goals. Sustainable operations include a variety of techniques designed to reduce environmental impact, conserve resources, and promote social responsibility across the manufacturing and distribution processes. On the other hand, the product life cycle refers to the stages that a product goes through from input into output till it turns out into recycled item.

a) **Product life cycle:**

Products, like people, have life cycles. The life cycle of a product is the stages of growth and decline a product experiences between being introduced to customers and being discontinued.

Chapter 01: Theoretical framework of sustainable operations

Figure 01: The product life cycle.



Source: <https://www.investopedia.com/terms/p/product-life-cycle.asp>, consulted on 07/02/2024, at 18h 40.

- Introduction Stage:

The introduction phase is the first time customers are introduced to the new product¹. During the introduction stage, there is often little-to-no competition for a product, as competitors may just be getting a first look at the new offering.

- Growth stage:

If the product is successful, it then moves to the growth stage. This is characterized by growing demand, an increase in production, and expansion in its availability the product becomes more popular and recognizable².

¹ <https://www.investopedia.com/terms/p/product-life-cycle.asp>, consulted on 07/02/2024, at 18h 40.

² Ibid.

Chapter 01: Theoretical framework of sustainable operations

- Maturity stage:

The maturity stage of the product life cycle is the most profitable stage, the time when the costs of producing and marketing decline. With the market saturated with the product¹.

- Decline stage:

As the product takes on increased competition as other companies emulate its success, the product may lose market share and begin its decline. Product sales begin to drop due to market saturation and alternative products, and the company may choose to not pursue additional marketing efforts as customers may already have determined whether they are loyal to the company's products or not.

b) The relationship between product life cycle and sustainable operations:

The relationship between sustainable operations and a product's life cycle is symbiotic, representing a holistic approach to environmental responsibility within businesses. Sustainable operations entail adopting practices that minimize environmental impact, conserve resources, and promote social well-being throughout the production and distribution processes. This approach extends to every stage of a product's life cycle.

Resource Efficiency:

During the introduction and growth stages of a product's life cycle, resource consumption tends to be higher due to production ramp-up and marketing efforts. Sustainable operations focus on minimizing resource use by adopting efficient manufacturing processes, reducing waste, and optimizing energy consumption. Companies can integrate sustainable practices early in the product life cycle to reduce resource intensity.

Manufacturing and Production:

Sustainable manufacturing practices focus on energy efficiency, waste reduction, pollution and the use of environmentally friendly materials and processes.

Distribution and Transportation:

Sustainable operations in distribution and transportation emphasize efficient logistics, optimized supply chains, and reduced emissions to minimize fuel usage.

¹ Ibid.

Chapter 01: Theoretical framework of sustainable operations

End-of-Life Management:

The decline stage of the product life cycle involves product obsolescence. Sustainable operations focus on responsible end-of-life management like recycling.

Consumer Behaviour and Education:

Educating consumers about product life cycles, eco-labels, and sustainable practices encourages responsible consumption. Consumers play a vital role in extending product life by using products efficiently.

In summary, sustainable operations integrate environmental considerations into every stage of a product's life cycle. By doing so, companies contribute to a more sustainable future while meeting consumer needs.

Section 03: The advantages of integrating sustainable operations into the company's activity

In this section we will explore how integrating sustainability can lead to long-term success.

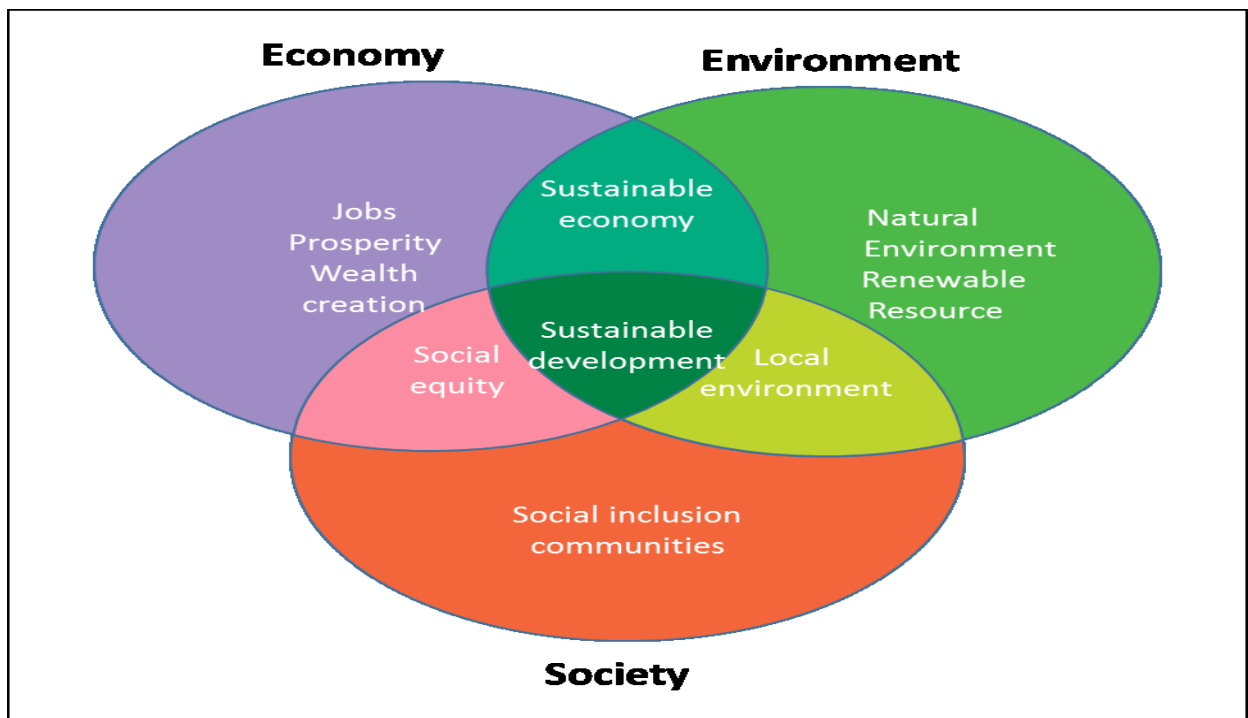
3-1 Dimensions of sustainable operations:

The Rio declaration quotes the 7th Principle as “...to conserve, protect and restore [...] the integrity of the Earth's ecosystem [...] the pressures their societies place on the global environment “¹

¹ <https://ebooks.inflibnet.ac.in/geop03/chapter/sustainable-development-concepts-dimensions/> consulted on 16/03/2024 at 21h 53

Chapter 01: Theoretical framework of sustainable operations

Figure 02: Dimensions of Sustainable operations



Source: <https://ebooks.inflibnet.ac.in/geop03/chapter/sustainable-development-concepts-dimensions/> consulted on 16/03/2024 at 21h 53

The figure 1 shows the relation between the economy, society, environment, and the way they are linked in systems.

a) Environmental Sustainability:

The basic functions of the environment that defines the capacity to preserve over time are such as wisely use of resources, complying by the laws, minimizing the facilities impact by operating efficiently and responsibly thus reducing the adverse impact of the products in use. Here recalling the first principle of from the Rio Declaration “Human beings [...] are entitled to a healthy and productive life in harmony with nature”. This principle entails that in an area the environmental sustainability assures the protection of environment and the renewal of natural resources by the means to increase the capacity and bring value to the environment and its peculiarities¹.

b) Economic Sustainability:

This concept of sustainability focuses mainly on the living environment, i.e. local / global natural and non-renewable resources which are necessary for our well-being without compromising the quality of life. Further reducing the financial burden and reversing the

¹ ibid

Chapter 01: Theoretical framework of sustainable operations

nuisances produced by the economic activity, potentially eliminating through a better management thus generating the constant growth capacity of the economic indicators. Hence in a territory, the Economic Sustainability represents the ability to maintain the highest added value by the efficient mix of resources and enhancing the product/service range capacity to generate employment and incomes for the populations to sustain¹.

c) **Social Sustainability:**

The ability to give assurance for the welfare of the masses (security, health, education), and equitably distributing it among the social classes and gender. Hence in a territory, Social Sustainability entails the capacity of the different social stakeholders to interact efficiently, aiming towards the same goals and encouraged by the close interaction of the Institutions at all levels².

3-2-The advantages that companies get by following the environmental orientation

The rapid developments in the business environment and the resulting pressures have made organizations consider their organizations, practices, plans, and policies in line with the requirements of Environmental Protection, where it became possible to achieve economic benefits related to the market system and the theory of social capital, cost limits, and adaptation to public policy, as follows:

a) **Responding to the market mechanism:**

the market demand for environmentally responsible goods or boycotting harmful goods is a major reason for increasing environmental awareness among producers, so organizations respond by paying attention to environmental aspects related to product design, production, packaging, distribution and disposal, as global research indicates that more than 80% of customers use an environmental criterion in their purchasing behavior, which supports the idea that environmentally friendly goods have become a key indicator of purchasing behavior, and this is confirmed by a product of 99 companies in the USA, 50% of which found that customer demand and competitive advantage having obtained the ISO14001 certificate³.

¹ ibid

² ibid

³ لعزاوي (عبد الوهاب)، أنظمة إدارة الجودة والبيئة، دار وائل لنشر والتوزيع، عمان، 2002، ص 194

Chapter 01: Theoretical framework of sustainable operations

b) Cost reduction:

An environmental organization can achieve savings in raw materials, intermediate goods, and energy while working to reduce the amount of pollution, and it is known that these materials play an important role in determining the cost of the product; therefore, the application of any program to economize the use of resources will bring profits and help reduce prices¹.

c) Adapting to Public Policy requirements:

most of the policies that affect organizations are the result of government decisions and activities that work to provide services that benefit all sectors of society, the government provides positive and negative incentives to organizations in order to motivate them to respond to social values when they do not respond satisfactorily through the market system, and therefore the most competitive organization is those that²:

1- avoiding environmental taxes: These are fees imposed on inputs or outputs that have negative consequences on the environment, and the main objective of imposing these taxes is to achieve changes in the patterns of use of various resources in a way that reduces their effects, which appear in the form of rational measures in the consumption of harmful substances either by reducing them or replacing them with other less harmful substances.

2- benefiting from environmental product development grants: These grants are usually provided to encourage scientific research in addressing the problems encountered by the environment and causing its degradation or pollution, finding effective solutions to solve these problems, or finding environmentally sound technologies to replace environmentally harmful technologies. These grants are directed to organizations to urge them to produce environmentally friendly products or replace their technologies with new ones that are more environmentally friendly. In both cases, whether the support is directed directly to the organization or to specialized bodies looking at the development of environmental products, this is in the interest of environmentally oriented organizations.

3- obtaining soft loans: These loans are characterized by being more affordable in terms of their conditions, such as a low interest rate or a long recovery period, and they are directed

¹ محبوب (مراد)، قرقب (مبارك)، "دور الجزائر في دعم التوجه البيئي لمنظمات الاعمال"، في، مجلة الاجتهاد للدراسات القانونية والاقتصادية، العدد 02، 2020، معهد الحقوق والعلوم السياسية بالمركز الجامعي لتامنغست، ص 148.

² محمددين (سيد)، حقوق الانسان واستراتيجيات حماية البيئة، الوكالة العربية للصحافة والنشر، القاهرة، 2006' ص 261,260.

Chapter 01: Theoretical framework of sustainable operations

specifically to repair, preserve, and protect the environment; therefore, these loans are in the interest of an environmentally distinguished organization.

4- enjoy tax incentives: There are two types of incentives related to the government's allocation of certain amounts in the form of coupons that are deducted when the tax is due to organizations as a result of their economic activities to preserve the environment or as a result of reducing the production of some products with harmful effects on the environment or changing them with environmentally friendly ones. The second type appears in the form of customs discounts on equipment, devices, and materials used in the production of environmental products or those related to pollution control in organizations.

5- benefiting from certificates of Environmental Excellence: Some countries provide annual awards to the environmentally distinguished and attach them with certificates of honor and financial amounts, which contributes to enhancing customer loyalty to the organization based on the blessing of the state and its appreciation of the efforts of this type of organization; for example, Algeria allocated the National Award for the environment for the year 2008, which is concerned with national public or private institutions that have made significant efforts in the field of industrial pollution removal and the development of cleaner production.

Chapter 01: Theoretical framework of sustainable operations

Conclusion of the chapter:

In an era of environmental consciousness and global issues, sustainable operations have emerged as a fundamental paradigm for organizations across industries. This chapter set the framework for understanding sustainable operations in the food sector.

Chapter 02: Creating company's value

Chapter 02: Creating company's value

At a time when the term globalization has emerged under competition, the realization of productivity alone is no longer sufficient to meet shareholders' requirements, as well as the actual continuation of the company, the company's goal is much greater than that of maximizing its value, but the pursuit of that goal by firm has resulted in a range of environmental risks. Then it is necessary for the institution to maximize shareholder wealth or create value, but in protecting the environment and knowing the extent to which its activity is reflected in environmental performance.

Section 01: Basic concepts about value creation

The economic institutions are integrating environmental operations into their strategies and goals in order to improve their performance, where it is noted that there is relationship between sustainable development and the company.

1-1 Concepts and definitions:

a) Definition of value:

Value has been in many different contexts, reflecting its multifaceted nature, according to some scholars, the concept of value is one of the most overused and misused concepts in social sciences in general and in marketing/management literature in particular¹.

Value implies through the notion of preference, the result of trade-off between benefits and sacrifices and an interaction between a customer and the product/service².

On the other hand, consumer values³ are considered as the implicit beliefs that guide behaviour since they reflect people's desired. And finally The accepted definition according to the Cambridge English Dictionary is that "*value is the amount of money that can be received in exchange for an object or the importance/worth of an object for someone*"⁴

The concept of value remains unclear, with no agreed-upon definition in the literature, there are many perspective and every literature refers to different phenomena.

b) Definition of value creation:

Value creation involves turning resources into something valuable through hard work, it's a comprehensive concept encompassing the creation of tangible products and services. It refers to the process of generating additional value for stakeholders, going beyond the initial investment or input. It also involves investments in capital goods and intellectual property assets. In essence, value creation is about making more out of what you have, and it's central to the success of any organization⁵.

¹ FERNÁNDEZ. (S) et BONILLO. (I): « Consumer perception of value: literature review and a new conceptual framework », in The Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior, volume 19, 2006, P41

² Ibid, P41

³ Ibid, P41

⁴ Cambridge Learner's English Dictionary, 4th edition, 2021.

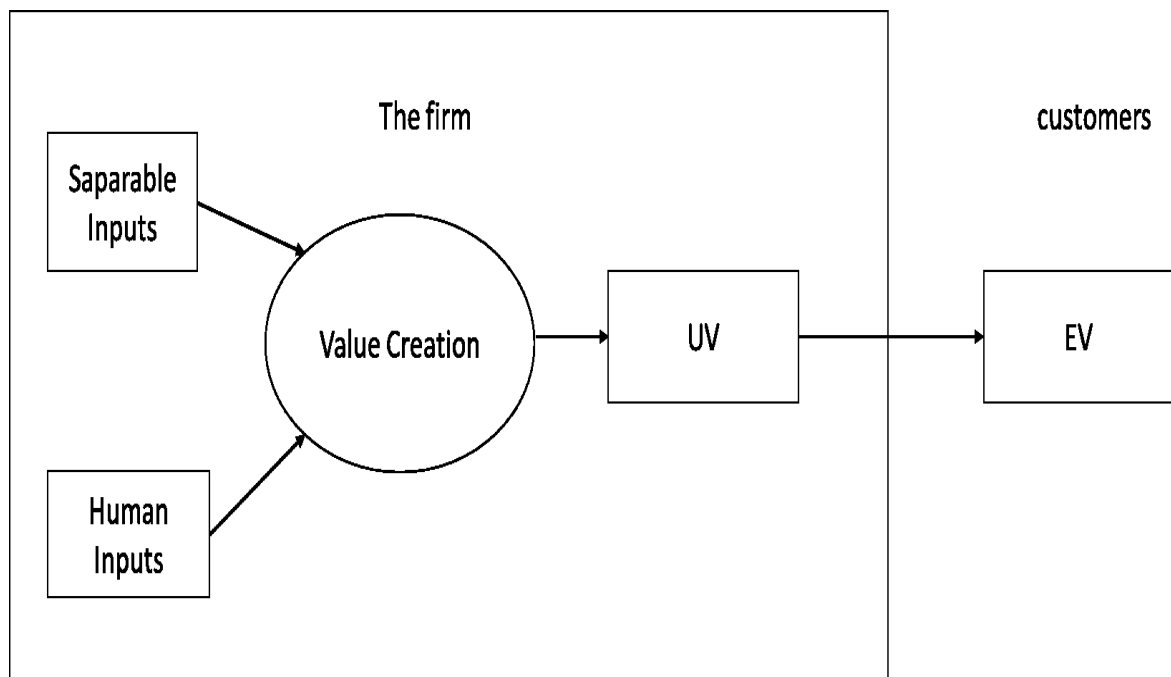
⁵ https://digitalleadership.com/blog/value-creation/#Value_Creation_Dimensions, consulted on 27/04/2024, at 17h30.

Chapter 02: Creating company's value

In financial terms, value creation is defined as an increase in the net present value (NPV) of a company's projects¹. But it is important to note that the concept of value creation goes beyond simply seeking profit. It covers a broader variety of topics, including improving products and services, building customer connections, driving innovation, and making beneficial contributions to the community and the environment.

1-2The process of value creation:

Figure03: Sources and Outcomes of Value Creation



Source: TODOROVA. N, Value Creation from IT-Based Knowledge Management:

A Theory of Symbiotic Relationships, thesis for Doctor of Philosophy, University of Canterbury, 2019, p29.

Use value refers (UV): to the perception of users of the quality of a product or a service as compared to their needs²

Exchange value (EV): refers to the monetary amount that the user pays to the seller for the use value³.

¹ SCHOENMAKER. (D), SCHRAMADE. (W), corporate finance for long-term value, Gewerbestrasse 11, 6330 Cham, Switzerland, 2023, P34.

² BOWMAN. C, AMROSINI. V, "Value creation versus value capture: towards a coherent definition of value in strategy". British Journal of Management, 11, 2000, pp 1–15.

³ Ibid.

The organizations create perceived use value and when products are sold they capture exchange value.

- **From a customer perspective:**

they pay a price (EV) for a product or service which has a perceived UV in monetary terms according to their judgement. The positive difference between the EV and the monetary UV is the consumer surplus or “value for money”¹. Therefore, for a customer, the value is maximised by increasing the UV of the product or service.

- **From a supplier's and shareholder's perspective:**

they offer a product which has a UV to their customer in exchange for monetary payment (EV). The product will not hold a UV for the suppliers - their value is in maximised EV. Shareholders offer payment (EV) in expectation of a higher monetary return (higher EV)².

- The firm as a business unit can be both a supplier and a customer. As a customer it will aim to maximise the consumer surplus and as a supplier it aims to maximise the consumer surplus

Value creation involves acquiring resources and transforming them into something that is more valuable. This can be performed as follows:

The purpose of the organization is to create value for many targets. One of these targets from the perspective of social responsibility is that society organizations realize how they do business impacts society and, in return, society responds to this impact. The firm creates EV and UV by transforming separable and human inputs.

Separable inputs exist separately from people and include materials and artifacts owned by the organization. These inputs hold utility value, but they cannot self-expand; therefore, they cannot create more value than what they already embody³.

Human inputs are in the form of performed services or activities, and their utility values of human inputs can also include the capabilities of employees to perform tasks based on experience and learning. Human input can create new utility values. For example, employees

¹ Ibid.

² TODOROVA. N, Value Creation from IT-Based Knowledge Management: A Theory of Symbiotic Relationships, thesis for Doctor of Philosophy, University of Canterbury, 2019, pp 28,29.

³ Ibid.

can derive new ways of deploying separable inputs, and this newly created value can be attributed to human inputs¹.

The inputs required to create value can be separable, or human inputs can expand their value while the value of separable inputs is fixed. To create value, a firm will perform activities that aim to maximize the EV from customers and the UV captured by suppliers.

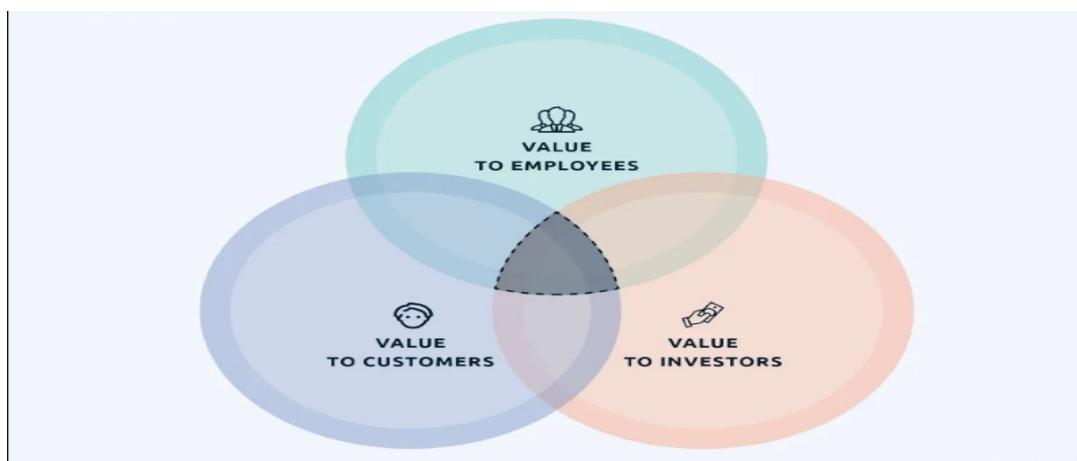
1-3 Dimensions of value creation:

The value creation model is adaptable, and contingent on factors such as industry, market dynamics, and the specific objectives of a company. In essence, it revolves around crafting a distinctive solution that effectively addresses a particular customer need or problem, surpassing existing alternatives in various aspects.

This achievement is realized through a focus on differentiating factors, which may encompass aspects such as quality, convenience, price, or innovation. Typically, the value created is evaluated by multiple stakeholders, including customers, investors, and internal teams or employees.

As we move towards a more sustainable model, it becomes imperative to extend the value assessment to encompass its impact on the planet and the broader ecosystem.

Figure 04: The dimensions of value creation



Source: https://digitalleadership.com/blog/value-creation/#Value_Creation_Dimensions, consulted on 27/04/2024, at 17h30.

¹ Ibid.

a) Value creation for customers:

Maximizing customer value begins with a thorough understanding of the unique needs and preferences of high-value customers. This entails a multifaceted approach that delves deep into customer data and behaviour. By segmenting the customer base, analysing historical behaviour, and conducting in-depth surveys and feedback sessions, businesses can uncover valuable insights. Additionally, creating customer journey maps, studying competitors, and employing predictive analytics all contribute to a comprehensive understanding. Social listening and cross-functional collaboration enhance this process further. The integration of data from various sources and the establishment of feedback loops ensure that this understanding remains dynamic and up-to-date. Armed with this knowledge, businesses can tailor their offerings and strategies to deliver exceptional value, ultimately fostering long-term customer loyalty and business success¹.

b) Value creation for employees:

Value creation for employees is essential for building a satisfied and engaged workforce, which, in turn, significantly contributes to the overall success and sustainability of a business.

Value creation for employees is crucial for a business's success and sustainability. Key aspects include competitive compensation, career development opportunities, work-life balance, recognition and rewards, a safe and inclusive work environment, empowerment and autonomy, clear communication and feedback, health and wellness programs, company culture and values, social responsibility and sustainability, employee engagement and feedback, fair and ethical treatment, team building and collaboration, and leadership development. Offering competitive salaries, benefits, and opportunities for skill development, as well as promoting a healthy work-life balance, can help attract and retain top talent. Encouraging a sense of belonging, teamwork, and collaboration can also enhance job satisfaction. Investing in these aspects can help employees progress into leadership roles, providing a clear path for growth².

c) Value creation for investors:

Value creation for investors is a fundamental objective for any business, as it directly affects the attractiveness of the company's investment proposition. Investors, whether they are

¹ https://digitalleadership.com/blog/value-creation/#Value_Creation_Dimensions , opcit.

² Ibid.

shareholders, bondholders, or other stakeholders, seek opportunities that offer the potential for sustained value growth¹.

Section02: Value creation and company

In this section we will focus on the relationship between value creation and the company.

2-1 Value creation in business:

Creating value is the first element that justifies the existence of the company on the market and the evaluation of its performance must be done in terms of value creation².

Value creation in business involves a multifaceted strategy for attaining enduring success³. Also identifies the intersection between the overlapping interests of customers, stakeholders, and the organization itself⁴. To thrive in a company's value, first, the ability to earn a return on invested capital (ROIC) greater than its weighted average cost of capital (WACC), and second, the ability to grow. High returns and growth result in high cash flows, which in turn drives value the value creation process⁵, ensuring their continued competitiveness and relevance in a swiftly changing environment.

The company creates value with all its processes in order to meet the needs. But, the ultimate goal of any company in terms of value is to create economic value⁶.

Your company value is your company's DNA, and it help you differentiate your business from the competition. That's why you can't make any important decisions without having them in mind. You have to truly honour your company value in everything you do and set the right example for your employees. It's the only way you can build trust in the workplace.

2-2 The types of value created by the company:

a) Customer Value Creation:

¹ Ibid.

² KAUFMAN. (J), Le personal MBA, traduit par ROLLAND, (S), édition LEDUC.S, 17, rue du Regard, Paris, 2005, p32

³ https://digitalleadership.com/blog/value-creation/#Value_Creation_Dimensions, opcit.

⁴ <https://www.imd.org/reflections/value-creation-in-business-importance-concepts-examples/>, consulted on 30/04/2024, at 10h40.

⁵ MCKINSEY & Company, valuation measuring and managing the value of companies, John Wiley & Sons, fourth edition, New jersey, 2005, P103

⁶ KAUFMAN. (J), opcit, P32.

Chapter 02: Creating company's value

Customer value¹ refers to the benefits and satisfaction that customers derive from a product or service. Companies create value for customers by delivering high-quality products, exceptional customer service, and innovative solutions.

b) Shareholder Value Creation:

Shareholder value pertains to the financial returns and benefits that shareholders receive. Companies create value for shareholders by maximizing profits, increasing stock prices, and paying dividends.

C)Employee Value Creation:

Employee value focuses on the well-being, development, and satisfaction of employees. Companies create value for employees through fair compensation, career growth opportunities, work-life balance, and a positive work environment.

d) Social and Environmental Value Creation:

Social value involves making a positive impact on society and communities.

Companies create value by promoting ethical practices, supporting social causes, and minimizing environmental impact.

e) The added value (VA):

Value added measures the wealth created by the organization. There are two different ways of understanding value added:

Financial value added

Perceived value added

1. Financial value added

is the difference between the cost to produce a product or service and the price that product or service sells for, the basic formula to calculate financial value added for a product or service is²:

Value added = Selling price of a product or service – the cost to produce the product or service

¹ https://digitalleadership.com/blog/value-creation/#Value_Creation_Dimensions, opcit.

² <https://www.indeed.com/career-advice/career-development/how-to-calculate-value-added>, consulted on 03/05/2024 at 11h 57.

2. Perceived value added

Is the factors into the price of a product, Companies determine the price of a product by what customers will pay based on the customers' perceived value of the item, not the actual cost to produce the item, perceived value added can be tangible or intangible.

Strategic enhancements to create value added allow companies to increase product prices without losing sales, which then boosts revenue for the company¹.

➤ Brand awareness

This is the ability of individuals to cite the mark either spontaneously or with assistance. Two indicators measure it:

- unaided awareness rate: percentage of people able to spontaneously cite a brand without a proposed list;
- Aided awareness: percentage of people who report knowing the brand on a proposed list².

➤ Branding

Branding is how a brand is perceived by different audiences. This image is not only for customers or users of the brand, but every person in the population can have a positive or negative opinion about the brand provided they know it³.

f) **Economic Value Added (EVA):**

Economic value added (EVA) is a measurement of a company's financial performance. Professionals use EVA to determine the value a company generates from the funds invested in it. Companies also refer to it as economic profit, since it calculates the true economic profit of a company⁴.

$$EVA = \frac{VAN - VAN - 1}{CAN}$$

¹ Ibid.

² www.assistancescolaire.com/eleve/1STMG/sciences-de-gestion-et-numerique/reviser-le-cours, consulted on 03/05/2024, at 12h 13

³ TOUKAL. (A), L'impact des réseaux sociaux sur l'image de marque d'une entreprise Algérienne, mémoire de master en Marketing, école des hautes études commerciales, Koléa, 2015, p56.

⁴ Ibid.

VA_n = the added value of the n year (the current).

$VA_{(n-1)}$ = the added value of the n-1 year (the year before).

CA_n = the revenue of the Company of the n year.

2-3 The importance of value creation:

Managers who focus on shareholder value create healthier companies, which in turn provide spillover benefits, such as stronger economies, higher living standards, and more employment opportunities. Our central message: Companies thrive when they create real economic value for their shareholders¹.

Investing in value creation creates a cycle of long-term benefits for all elements of your firm. In other words, value creation trade-offs keep your business viable, allowing you to keep doing what you're doing - but better. These are the primary areas impacted by value generation.:

a) Sustainable business success:

Targeted value creation ensures long-term value for this quarter and for years to come. Without a clear vision of the company's objectives, initiatives are unfocused. When resources aren't sustainably allocated, cash flow halts, the bottom line decreases, and future endeavors are at a disadvantage².

b) Customer satisfaction:

The customer relationship doesn't end at the buying decision. In fact, it begins with the creation of value. Sustained customer satisfaction results in continued business with supportive consumers. These long-term customers inspire new purchases through word-of-mouth product recommendations to their friends and family³.

When a company consistently delivers value to its customers, it cultivates trust and reliability. This often leads to repeat business, where satisfied customers return for additional products or services. Not only do they continue to support the business, but they also actively recommend it to their friends, family, and colleagues. This positive word-of-mouth marketing can significantly expand a company's customer base.

¹MCKINSEY & Company, opcit, P04

² <https://www.imd.org/reflections/value-creation-in-business-importance-concepts-examples/>, opcit.

³ Ibid.

c)Competitive advantage:

When value creation informs your company's initiatives, it keeps your offerings top-of-mind and your name at the top of the food chain. The shutdown of many businesses during the COVID-19 pandemic proves that having a competitive advantage does more than increase profits – it can keep your company alive during times of strained financial returns¹.

A business that consistently provides greater value to its customers distinguishes itself in the market. This distinctive value proposition sets it apart from competitors and often results in a more robust market presence. Companies with a strong value creation strategy can often command higher price points. Customers are frequently willing to pay more for products or services they perceive as having additional value.

d)Stakeholder engagement:

Within a company's practices, value creation can take the form of transparent communication regarding goals, performance, and assets with stakeholders. This clarity sustains the balance between internal initiatives and stakeholder engagement. The decision-making process strengthens when these perspectives align².

e) Financial performance:

Understanding the values and needs of customers, stakeholders, and the organization results in the most competitive pricing that both appeals to customers and optimizes profits. When the creation of value takes center stage in the decision-making process, financial returns are fully realized because of the precision of company initiatives³.

Customers are often willing to pay premium prices for products or services they perceive as valuable. This premium pricing not only enhances revenue but also contributes significantly to profit margins.

f) Innovation and adaptability:

Change is the only constant, and customer needs are no exception. Without refocusing efforts and innovating your offerings, your customers will find another company that can meet their

¹ Ibid.

² Ibid.

³ Ibid.

evolving expectations. Innovating your products and services retains old customers and attracts new ones¹.

A strong commitment to value creation fosters a culture of continuous improvement within an organization. This commitment drives the company to constantly evaluate and refine its existing processes, products, and services. By doing so, the organization aims to enhance their efficiency, effectiveness, and overall value proposition. This iterative approach ensures that the company remains competitive, adapts to changing market dynamics, and consistently delivers exceptional value to its customers

Section03: Evaluating sustainable operations and their relationship to value creation

In this section we will explore the link between the sustainable operations and value creation.

3-1 The factors that contributed to the development of company's interest in using sustainable development:

There are many reasons and factors that led to the interest of economic institutions in activities related to their performance, besides their economic performance, which are as follows:

a) Consumer Demand and Awareness:

Consumers are more conscious of their food choices. They seek products that are safe, nutritious, and ethically produced. Companies respond by adopting sustainable practices to meet consumer expectations².

In recent years, consumers have become increasingly mindful of their food choices, prioritizing products that are not only safe and nutritious but also ethically produced. As a result, companies have recognized the need to adopt sustainable practices in order to meet these evolving consumer expectations.

b) Environmental Concerns:

¹ Ibid.

² PRASANNA. S, VERMA. P, BODH. S, "The role of food industries in sustainability transition: a review", in, Environment, Development and Sustainability, number not found, 2024, School of Agriculture, Lovely Professional University, PP 01-12.

The food industry significantly impacts the environment. Greenhouse gas emissions, deforestation, soil degradation, and water consumption are pressing issues. Companies recognize the need to reduce their ecological footprint and protect natural resources ¹.

The food industry is one of the largest industries in the world and it has a significant impact on the environment. The production, transportation, and distribution of food products require a lot of resources, such as water, land, and energy, and generate significant greenhouse gas emissions, waste, and pollution. To address these issues, many companies in the food industry are taking steps to reduce their ecological footprint and protect natural resources.

c)Regulatory Pressure:

Governments and international bodies impose regulations related to sustainability. Companies must comply with standards on food safety, traceability, and environmental impact. Non-compliance can lead to legal consequences and reputational damage².

Governments and international bodies impose regulations related to sustainability. Companies must comply with standards on food safety, traceability, and environmental impact. Non-compliance can lead to legal consequences and reputational damage.

d)Brand Reputation and Differentiation:

- Companies build brand value through sustainability.
- Ethical sourcing, transparency, and social responsibility resonate with consumers.
- Brands that prioritize sustainability stand out in a competitive market ³.

In today's world, consumers are increasingly conscious of sustainability and are looking for brands that are committed to social and environmental responsibility. By prioritizing sustainability, companies in the food industry can build brand value and differentiate themselves from competitors. Customers want to know where their food comes from and how it is produced. They also want to support brands that treat their employees, suppliers, and communities with respect and fairness.

e) Investor Expectations:

¹ Ibid.

² عبد الصمد (نجوى)، المحاسبة عن الأداء البيئي: دراسة تطبيقية في المؤسسات الجزائرية المتحصلة على شهادة الايزو 14001، أطروحة دكتوراه في علم التسيير، كلية العلوم الاقتصادية والتجارية وعلوم التسيير، جامعة قاصدي مرباح، ورقلة، 2018، ص ص 28-29.

³ MECHTHILD. D, HUGO. V, "Business models for sustainable food systems: a typology based on a literature review", in, *Agriculture, Food and Environment*, university Montpellier, France, 2023, PP 01-16.

Companies with robust sustainability strategies attract investment. Long-term value creation aligns with investor interests ¹.

Investors are increasingly interested in supporting companies that prioritize sustainability, as they recognize the importance of social and environmental responsibility for long-term success. Many investors are also concerned about the impact of climate change and environmental degradation on the global economy and are looking to invest in companies that are taking steps to address these issues. As a result, companies that prioritize sustainability can have access to a larger pool of capital and may be able to secure financing at lower costs.

f) Innovation and Market Opportunities:

Sustainable practices drive innovation. Companies develop new products, packaging, and distribution methods which means addressing societal challenges creates business opportunities ².

Companies that prioritize sustainability often develop new products, packaging, and distribution methods that can create business opportunities.

3-2 The impact of sustainable operations on value creation in food industry:

In order to maintain its financial position and strengthen its competitiveness, the organization must explore ways to make costs less feasible. In turn, it increases the feasibility by adopting new methods and areas and adjusting its strategies to achieve leveraging. One of the reliable strategies is the strategy of living with the environment by improving its performance. and to reach out to a good achievement it must produce several methods between eradicating pollution, improving the environment and recycling its waste. This is reflected in the increase in the green supply chain and the conservation of natural resources as well as the protection of natural resources, as well as the move away from the effects of productive processes and their associated negative impact on health, which will contribute to reducing the risks and negative impacts on the environment, thereby reducing the price of the product by reducing waste and achieving opportunity cost, which will positively reflect on the achievement of value added to the enterprise.

We can summarize the impact of sustainable operations on value creations in:

¹ <https://www.mckinsey.com/industries/retail/our-insights/grocers-sustainability-opportunity-in-transforming-the-food-system> consulted on 03/05/2024, at 13h 12.

² PRASSANA. S, VERMA. P, BODH. S, opcit, PP 01-12.

- Companies that prioritize sustainability build a positive reputation.
- Clean production contributes to the preservation of raw materials, water, energy, disposal of hazardous and toxic substances, lead to cost reductions. Lower costs improve profitability and shareholder value¹
- Predicting the environmental impacts of the institution at an early stage which contributes to avoiding costs of treatment and legal obligations;
- Retracting the environmental performance of the institution which will provide greater transparency to users of information,
- Analyse the product's life cycle by assessing the environmental impact of the product with a view to increasing the efficiency of the use of available resources and reducing losses;
- The use of environmentally safe technology, which contributes to the reduction of raw material and energy consumption.
- waste recycling leads to increase revenue².

¹ <https://www.mckinsey.com/industries/retail/our-insights/grocers-sustainability-opportunity-in-transforming-the-food-system>, consulted on 10/05/2024, at 22h 15.

² علاوي (صفية)، سياسة تحسين الأداء البيئي كمدخل لتحقيق الإنتاج الأنظف في المؤسسة الاقتصادية المعاصرة: بالإشارة إلى بعض المؤسسات الجزائرية، مجلة الحقوق والعلوم الإنسانية، العدد 02، جامعة زيان عاشور، الجلفة، دون سنة، ص 46.

Conclusion of the chapter:

Through this chapter, we tried to give a theoretical morality on the subject of our study, as the economic enterprise's primary objective is to achieve profit and maximize its wealth. On the other hand, it must improve its environmental performance for its benefit and that of the surrounding parties and society as a whole.

Environmental performance is considered to be the one who reflects the institution's environmental protection position by using a set of tools and indicators to help identify the most important environmental impacts, demonstrate and link the environmental objectives of institutions and develop the effectiveness and efficiency of staff.

When examining the relationship of sustainable operations in creating an enterprise's value, we concluded that using sustainable operations helps to maximize the value as well the reputation of the company.

Chapter 03: A field study of Amor Benamor Mills

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The economic institution is looking day after day to reach a good level of environmental performance by controlling the effects that its activities may have on the environment. These concerns have emerged in light of the increasing pressures imposed on them by society and related to environmental conservation and sustainable development, and in this regard, many institutions have adopted a new philosophy through which they review their economic goals and policies with those related to environmental conservation, and this is through environmental protection laws, which is not only looking for a good level of performance, but also seeks excellence, and from it, Environmental Performance Assessment contributes to achieving sustainable development in environmental terms as well as value creation in relation to the economic institution, this chapter has come to show the contribution of environmental performance in its ability to create value.

Chapter 03: A field study of Amor Benamor Mills

Section 01: Presentation of Amor Benamor Mills

In light of what has been presented in the previous two chapters, a field study was conducted in this chapter at the Amor Benamor Mills company, which is considered an economic institution with limited liability, as this institution seeks to achieve positive results like other institutions.

1-1 The history of the Amor Benamor group:

BENAMOR Group is a family business under Algerian law specializing in the food industry and is one of the major companies in the agro-food industry. Here's the summary of the different stages that the company has gone through since its creation which took place over six main stages as follows:

Table 02: The key date of the history:

Date	The event
1986	Creation of the CAB cannery in Bouati Mahmoud, 17km from Guelma.
2002	the establishment of AMOR BENAMOR mills for the production of pasta and semolina.
2004	Commitment to agricultural development: transition from a traditional method of producing root seedlings to mottled seedlings, 1100 farmers accompanied.
2005	Creation of the durum wheat improvement network.
2009	The establishment of BENAMOR Real Estate Development
2013	Creation of Mediterranean Mills Company

Source: Human Resource Department of MAB.

1-2 Presentation of AMOR BENAMOR Mills:

It is a branch of the Amor Benamor industrial complex, which was founded by the late father Amor Benamor, who was able to impose himself as a leader in the national market for industrial food and family business, Then, after the death of father Amor Benamor, the management of the group passed to his four sons, where they continued their father's career in improving the quality of various products of the group.

The mills' production initially started with an output of 300 tons per day, which increased to 700 tons per day by the year 2004. This represents a production capacity increase of 400 tons

Chapter 03: A field study of Amor Benamor Mills


per day. In 2009, a food pasta production unit was established, producing couscous and other food products. This unit obtained the ISO 9001 global quality certification and the ISO 22000 certification for food product safety in 2012. These achievements are attributed to the quality management system that the organization has diligently implemented since its inception. Furthermore, in 2014, the unit was equipped with a pasta production line renowned worldwide making AMOR BENAMOR Mills a key player in this sector in Algeria.

That offers a multitude of products:

- Short pasta: Angel hair, Elbows, Tlitli, ...
- Long pasta: Spaghetti, Linguine, Vermicelli, ...
- Special pasta: lasagna, Parachute, ...
- Couscous: Fine couscous, medium couscous, large couscous, Seffa.

a) Technical sheet of Amor Benamor Mills:

Table03: Technical sheet of Amor Benamor Mills

Name	AMOR BENAMOR Mills
Legal form	limited liability company
Logo	
Slogan	Always inspiring you
Address	Industrial zone, 24130, El Fedjoudj, Guelma- Algeria.
Products	semolina, pasta, couscous.
Number of employees	770

Source: realized by the student based on internal document (Idem)

b) Objectives of the company:

Since its creation, the Omar Bin Omar Mills unit has been striving to achieve the following objectives:

- Ensure survival and continuation.
- Achieve the largest percentage of sales and profits.
- Promotion of local labor and absorption of unemployment.
- Trying to gain the largest share of the national market.
- Continue to maintain production in terms of quality and price.
- Seeking to compete with international institutions that are active in the same field.

Chapter 03: A field study of Amor Benamor Mills

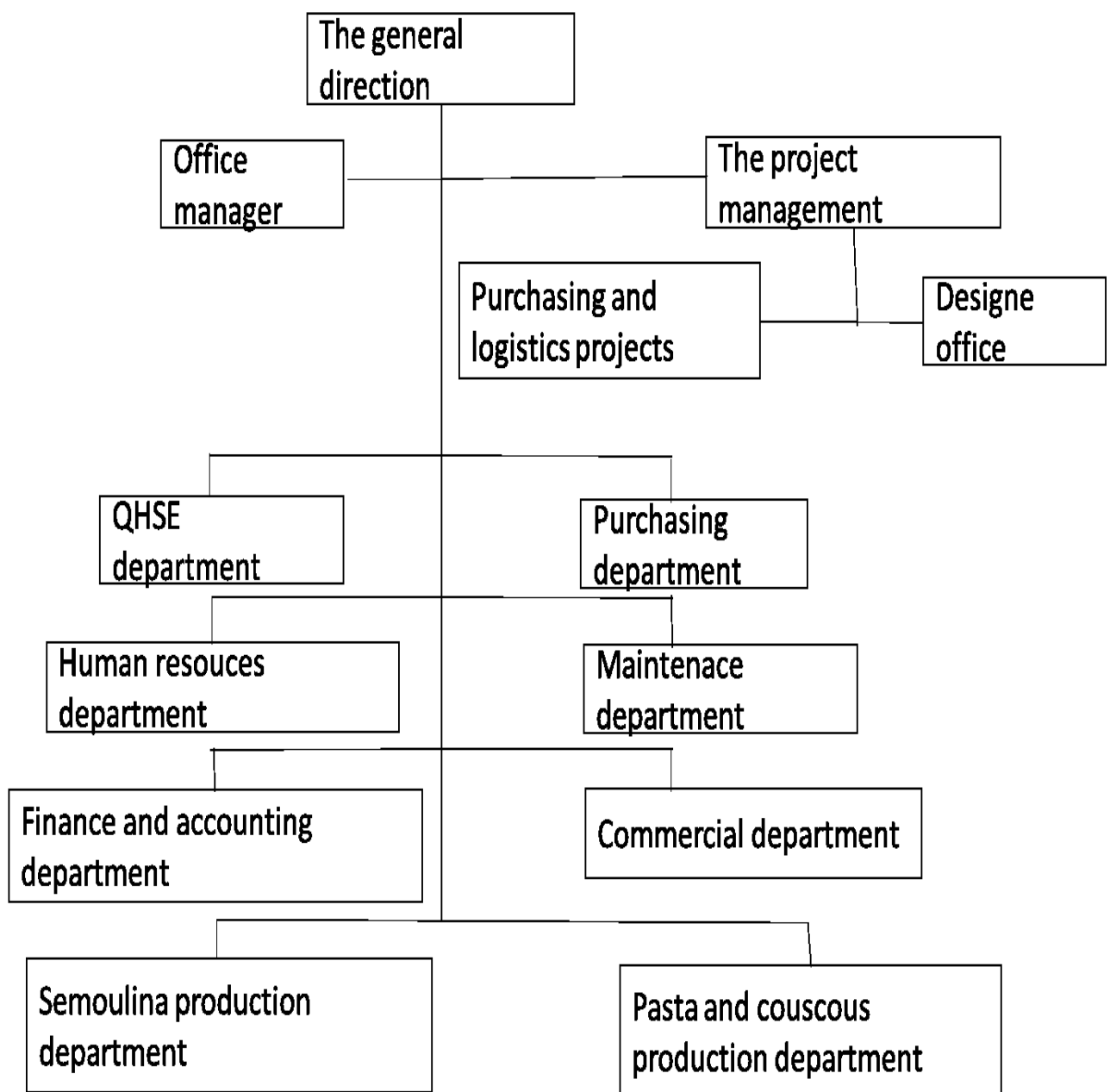
- Work on the preservation of the environment.
- Work on maintaining customers and acquiring new customers.

c)The Organizational chart:

The following figure shows the organization chart of Amor Benamor Mills

We will present the different directions that constitute the company in the first place, then we will focus on the quality, safety and environment department

figure05: The organization chart of Amor Benamor Mills



Source: Human Resource Department of MAB.

Chapter 03: A field study of Amor Benamor Mills

➤ **The general direction:**

This is the predominant function of a company. It applies to defining the choices, strategic objectives of the company. It organizes the company by setting up the necessary subsystems, structures, methods and procedures to achieve the objectives.

➤ **Human resources department:**

Is a set of measures aimed at mobilizing and developing human resources for a more efficient organization, it is an activity that must tend to improve transversal communication, while ensuring respect for the organizational chart of the company.

The missions are taken over by the human resources departments in collaboration with the other departments and the field managers in a logic of objectives set by the company.

➤ **The production department: (Semolina, Pasta and couscous department)**

His role is to plan and organize production with a mastery of costs and deadlines.

This direction watches over:

- To ensure compliance with quality and safety standards.
- To optimize the use of equipment, raw materials, and labor.
- To minimize manufacturing costs.

➤ **Purchasing Department:**

The Purchasing Department ensures the application of the company's purchasing policies in order to acquire goods, equipment or services to satisfy the proper functioning of municipal services.

At Amor Benamor Mills there is two divisions:

Purchasing Department (purchasing services, purchasing packaging):

- Establish purchasing procedures.
- Acquire the necessary goods, services and equipment.
- Assist municipal departments in the preparation of estimates and calls for tenders.
- Analyse the submissions and make the necessary recommendations.

the Store:

- Receive the goods and send them to the applicants.

Chapter 03: A field study of Amor Benamor Mills

- Manage the storage of stocks.
- Control the inventories.

the stock represents 10% of the company's capital

➤ **Maintenance department:**

Its role is to monitor the various machines at the level of the two units, if a malfunction occurs, they are obliged to fix it as soon as possible in order to maintain the pace of production. Also prepare monthly reports on the number of disruptions and technical interventions that has been made.

1-3 The SWOT analysis:

Table 04: The SWOT analyse of Amor Benamor Mills

Strength	Weakness
a leading brand attractive price a diversified range of products good knowledge of customer reviews/needs very active feedback from customer service extended communication network mastered distribution chain follow the ISO terms respect the environment	works in a competitive market the products can be easily replaced increasingly strong competition weak production
Opportunities	Threat
building a lasting relationship with customers distribution throughout the national territory new product and service	changing consumer behavior very important competitors in the market threat of new entrants raw material price increase application of new taxes and duties lack of raw material

Source: realised by the student

Chapter 03: A field study of Amor Benamor Mills

1-4 The main competitors of AMOR BENAMOR product: ON East West South Center

In the following table a list of the most important competitors of the Amor Benamor company that are currently active on the market.

Table 05: The most important competitors of the Amor Benamor Mills

 The logo for Safina features the word "Safina" in a stylized blue font with Arabic calligraphy above it, all enclosed in a gold oval with a wheat stalk graphic below.	 The logo for Majbooba consists of the word "محبوبة" in white Arabic script on a dark blue background, with a red and green swoosh at the bottom.
 The logo for Mama shows the word "mama" in a black, rounded font above a circular illustration of a woman's face, with "AU CŒUR DU BLÉ" written below.	 The logo for Sim features the word "sim" in a bold, blue font inside a blue oval with yellow wheat stalks on either side.
 The logo for alBaraka shows the word "alBaraka" in white on a green background, with "SAVOIR TERROIR ET TRADITION" below it, set against a background of wheat.	 The logo for extra features the word "extra" in a white, cursive font inside a red oval, with a wheat stalk above it, and "Pâtes Benhamadi" written below.

Source: realized by the student

1-5 Quality, Health, Security, environment department:

The Quality, Health, Safety, and Environment (QHSE) department plays a central role in ensuring sustainable and responsible operations within organizations. It provides oversight and management across critical domains, encompassing quality assurance, health and safety compliance, security protocols, and environmental impact assessments.

a) Policy:

At Amor Benamor Mills, we pride ourselves on being a responsible industry leader that values our employees, customers, and the environment. In addition to producing premium semolina, pasta, and couscous, we prioritize the well-being of our employees, ensuring their safety and health. We are committed to providing our customers with the highest level of satisfaction, and we achieve this through our Quality, Health, Safety, and Environment (QHSE) policy. This comprehensive framework guides our actions and decisions in all aspects of our business,

Chapter 03: A field study of Amor Benamor Mills

including production, distribution, and customer service. Our commitment to sustainability means that we take measures to preserve the environment and reduce our carbon footprint.

Instilling environmental culture and its concepts to workers.

- The need to comply with the application of environmental legislation and laws.
- To educate workers in terms of the practical protocol that must be adhered to in terms of protecting the worker from accidents and on the other hand the cleanliness of the product:
 - * Workers must wear the appropriate work kit
 - * Workers inside the factory must wear: protective clothing, protective masks, gloves, goggles, earplugs, work apron.
- Preserve the environment from pollution and reduce the depletion of Natural Resources.
- Treatment of pollution resulting from human or industrial activities.
- Creating environmental awareness among employees.
- Trying to use alternative sources of energy such as the sun.
- Increase green spaces that increase the cleanliness and aesthetics of things.
- Protect the ocean from any deterioration or damage that would endanger current and future jobs.
- Work to reduce waste to a minimum.
- Recycling and using waste to reduce production costs and at the same time create value.
- Managing manufacturing processes and securing equipment and services in a good way.
- Safe handling of solid and hazardous waste and the use of appropriate methods for recycling or disposal.
- Improving the image of the institution in front of its society and the strength of effectiveness in the field of consumer and Environmental Protection.

Amor Benamor Mills recognizes its responsibility to minimize its impact on the environment and protect the community. MAB strives to reduce waste, conserve resources and reduce pollution through sustainable practices and innovative technology. By embedding

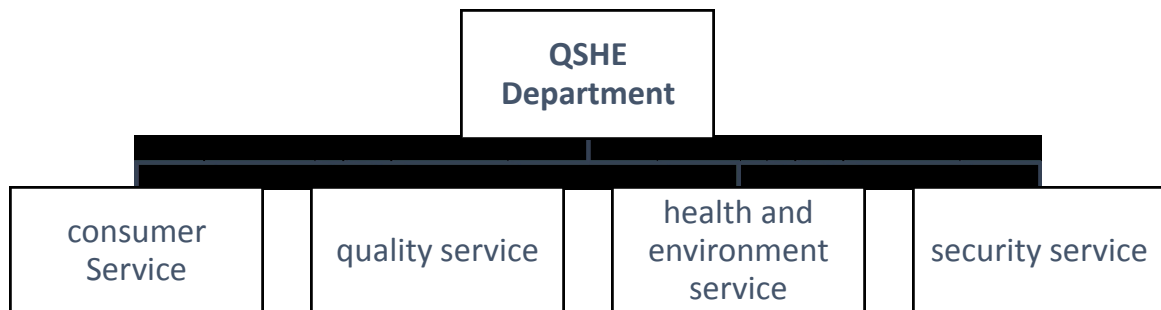
Chapter 03: A field study of Amor Benamor Mills

environmental considerations into its business operations, the company seeks to leave a positive legacy for future generations while supporting the long-term resilience of its business.

b) Organizational chart of the QHSE department:

The QHSE (Quality, Health, Safety, and Environment) department consists of four services consumer, security, quality, health and environment service.

Figure06: Organizational chart of the QHSE department



Source: Human Resource Department of MAB.

➤ **Quality Service:**

the quality department is responsible for ensuring stringent standards are maintained from sourcing raw materials to final delivery of the product. The department is responsible for quality control measures, regular inspections and audits, and handling deviations from standard operating procedures. The department is crucial in guaranteeing that the firm produces products that meet or exceed consumer expectations while complying with statutory requirements thus, protecting Amor Benamor Mills' invaluable reputation.

➤ **Security Service:**

The security department secures the company's assets, premises, and staff from any conceivable form of threat or intrusion. The functions of this department are monitoring access points, installing surveillance, performing security audits as well as disaster response preparation.

Chapter 03: A field study of Amor Benamor Mills

Having such a solid security structure implies that the entity is safe from asset loss, destruction. Thus, the reputation and continuance of Amor Benamor Mills are safe.

➤ **Consumer Services:**

Interacting with customers to get input on product packaging and disposal methods.

-Providing consumers with assistance and information on proper waste separation and disposal. In response to consumer requests and concerns.

-Working with the marketing and communications teams to promote environmentally friendly packaging and recycling activities.

➤ **Health and environment Service:**

The health and safety department is responsible for ensuring the well-being of employees at work. They carry out risk assessments, implement health and safety protocols, and train employees on occupational hazards. Additionally, they provide medical support or medication when necessary, which helps create a safe and healthy environment that boosts productivity and worker satisfaction. To minimize its environmental footprint, Amor Benamor Mills adopts sustainable practices such as energy efficiency, waste reduction, and resource conservation. The company also complies with environmental regulations and standards related to air and water quality, waste management, and pollution prevention. Environmental considerations are integrated into the design and manufacturing processes to reduce the environmental impact. The company invests in eco-friendly technologies like renewable energy sources and water recycling systems, engages with stakeholders, and promotes environmental awareness to collaborate on sustainability initiatives.

c) Environmental objectives:

Among the objectives that the Amor Benamor Mills Foundation aims to accomplish in the realm of environmental sustainability are the following:

- Implementing measures to reduce and manage waste, including the storage of hazardous materials.
- Complying with and adhering to all applicable state laws and regulations, which may involve paying taxes and fines for polluters.
- Educating and sensitizing workers through the development of training programs and courses to promote environmental preservation.

Chapter 03: A field study of Amor Benamor Mills

- Strengthening partnerships and collaborations with environmental protection organizations.
- Minimizing costs associated with waste disposal.
- Exploring the use of biodegradable packaging materials that can break down in soil.
- Striving to make all products environmentally friendly and sustainable.

Chapter 03: A field study of Amor Benamor Mills

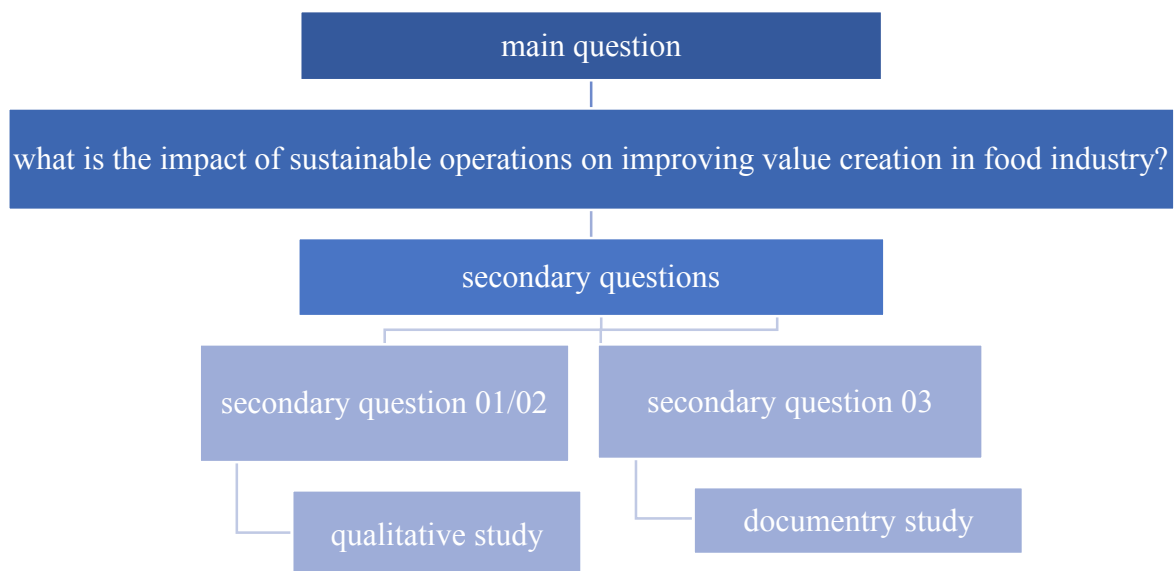
Section 02: The presentation of the methodology of the practical study

After completing the theoretical study and introducing the company, our objective is to highlight a descriptive and analytical study focused on the impact of sustainable operations on value creation in food industry in the Amor Benamor Mills to understand the profound effects of sustainability on value creation. In this section, we will present the methodology that we followed in our practical study, starting with the qualitative study as well as the quantitative study. we will present for each study the methods used in the collection and exploitation of the data. our objective was to answer our problem and to verify the hypotheses that we had previously established.

2-1 Presentation of the study:

To execute this thesis, which spanned four months (February to May) and accomplish the objectives we established at the start of our research, we conducted two kinds of studies, qualitative and quantitative. The figure below offers an illustration that elucidates the various methods of addressing each research issue.

Figure 07: Illustration of the various methods of research



Source: realized by the student

Secondary question 01: Does Amor Benamor adopt sustainable operations?

Chapter 03: A field study of Amor Benamor Mills

Secondary question 02: what are the most important sustainable practices adopted by Amor Benamor Mills?

Secondary question 03: Do the implementation of sustainable practices improve the quality of value creation?

2-2 The methodology of data collection and processing

In this part, we will present the working methodology for each problem of our study.

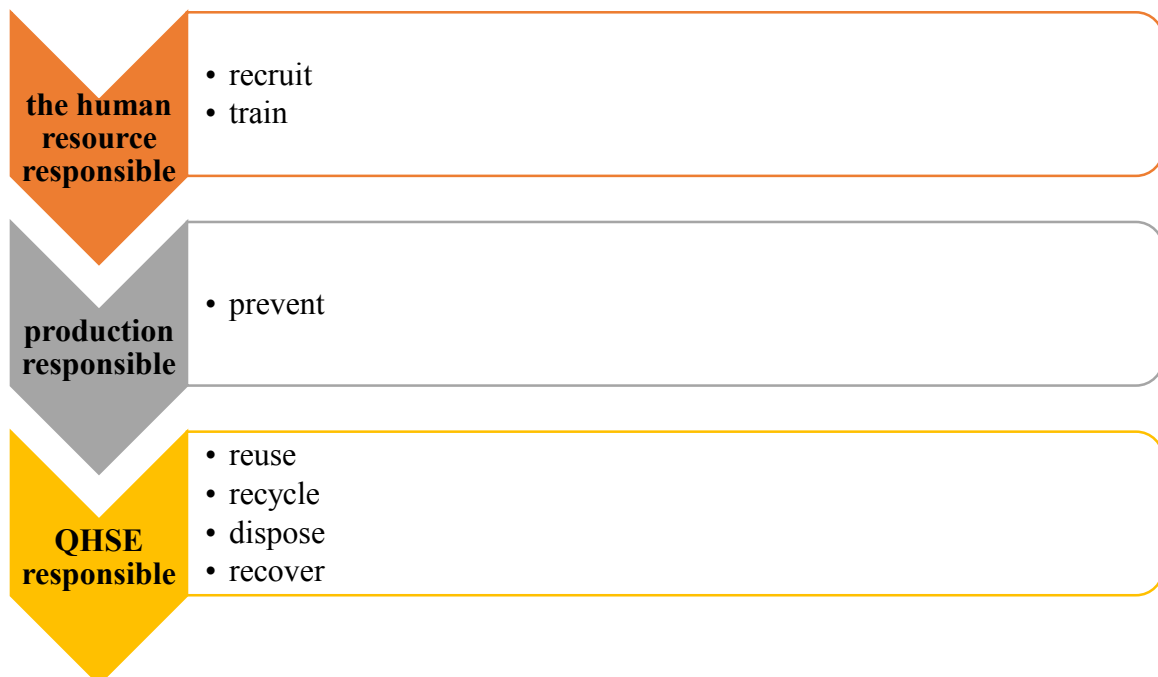
A. The method of work for the secondary question 01

In order to answer for the first sous-problematic “what are the sustainable practices adopted by Amor Benamor Mills?” we opted for a qualitative study where the details of the study are presented below.

➤ **Method of data collection**

In order to comprehend the specific sustainable practices that Amor Benamor Mills implements to preserve the environment and assess their responsibility in this regard, we did a semi-directive interviews with three responsible (the QHSE responsible, the production responsible and the human resource manager) and to simplify this we created this schematic:

Figure 08: The process of maintaining the sustainability



Source: realized by the student based on document from the QHSE department.

Chapter 03: A field study of Amor Benamor Mills

The Amor Benamor Mills' process outlines the responsibilities of each stakeholder in safeguarding the environment. For example, the production manager's objective is to minimize waste, while the QHSE responsible plays a pivotal role in recycling and finding ways to reuse waste, ultimately benefiting from it. Meanwhile, the Human Resource Manager focuses on enhancing employee efficiency in terms of environmental attention and protection.

➤ Presentation of the interview:

To ensure the most accurate responses, the questions for a relevant study were directed towards the most capable individuals, specifically the responsible who were most likely to provide satisfactory answers.

Table 06: The details of the interviewees

Full Name	Duration	Time and Date	Method
BOUGHOLA Rahma	45 min	21/04/2024	Written exchanges
HAMLAOUI Jamel	30 min	21/04/2024	Written exchange
OUARTSI Abd El Ghani	30min	21/04/2024	Written exchange

Source: realized by the student

➤ The interview guide:

In order to effectively conduct and manage the interview, we have prepared a comprehensive guide containing 17 questions, which have been organized into five distinct themes that align with our objectives.

Table 07: the interview guide

Themes	Objectives
The company's commitment to environmental protection	Objectif is to shed light on company's environmental responsibilities and to assess its structure.
the company's approach to sustainable development	The primary objective is to understand how the company integrates sustainability into its operations and who holds responsibility for ensuring that environmental factors are respected

Chapter 03: A field study of Amor Benamor Mills

The sustainable production method	Aim to evaluate the company's commitment to sustainable manufacturing practices and its efforts to balance environmental concerns with production demands.
The company's sustainable operations	The primary objective is to gain insights into the company's sustainable operations implemented by the company
The procedures of the company in waste management	The objective is to know how the company handles various types of waste generated from its activity.

Source: realized by the student.

➤ **Analyse of the results:**

After interviewing company representatives and transcribing their responses we encountered a collection of rich qualitative information in the form of textual data. We then went on to analyze the results, we opted for a thematic analysis, where we classified the respondent's comments with regard to themes and sub-themes in an analysis grid. The themes are directly related to the questions mentioned on the interview guide, as for the sub-themes, they were identified from our overall reading of the answers to the interview before the final classification of the latter.

It should be noted that some of the respondent's comments have been reformulated with caution to facilitate interpretation, but this is in no way a modification of the meaning of the statements.

B. The method of work for the secondary question 02:

➤ **Documentary study:**

To strengthen the part of the study of the relationship between sustainable practices and the creation of value, we called on a documentary research where the company provided us with some indicators. These indicators extend over a period of 4 years from 2019 to 2023, the results were discussed to support the company's responsibilities towards the environment. And to properly conduct the documentary study and evaluate the effectiveness of the company during the preservation of the environment we calculate the indicator of Economic Value Added (EVA).

Methodology for calculating economic value added:

Chapter 03: A field study of Amor Benamor Mills

$$EVA = \frac{VA_n - VA_{n-1}}{CA_n}$$

VA_n = the added value of the n year (the current).

$VA_{(n-1)}$ = the added value of the (n-1) year (the year before).

CA_n = the revenue of the Company of the n year.

VA = Selling price of a product or service – the cost to produce the product or service

Chapter 03: A field study of Amor Benamor Mills

Section 03: Discussion of the results

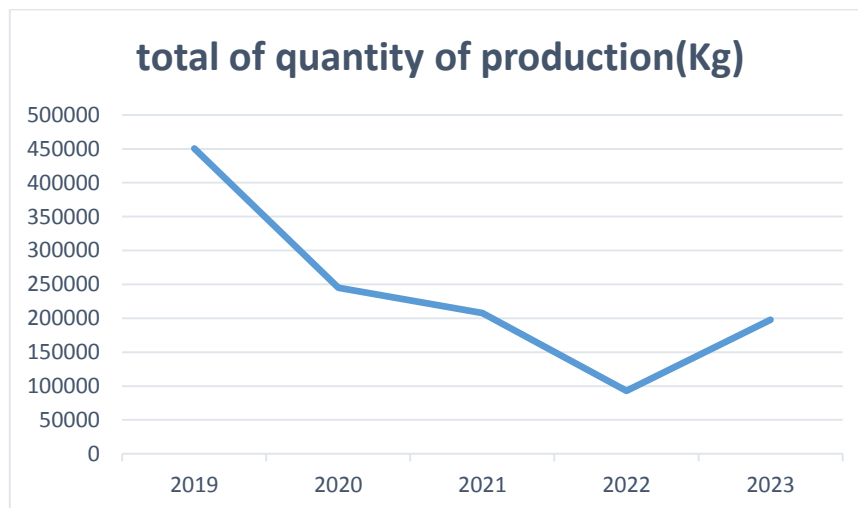
After discussing the method used of the study in this section we will present the results of our study where we will proceed as follows:

We will present the results of the interview, to address the sustainable practices adopted by Amor Benamor Mills and we will track indicators to evaluate the achievement of sustainability on value creation.

3-1 The production quantity:

In the realm of economics and business, understanding production trends is essential for decision-making, resource allocation, and strategic planning. Whether you're a business owner, an economist, or simply curious about how goods are produced, analyzing production data can reveal valuable insights. The graph titled "Total Quantity of Production (Kg)" tracks the production quantity over a five-year period, spanning from 2019 to 2023.

Figure 09: Presentation of The quantity of production (unit of measure KG)



Source: realized by the student based on internal document

In 2019, the production quantity starts at approximately 450,000 kg.

There is a sharp decline in 2020, bringing the production down to about 300,000 kg.

From 2020 to 2022, the decline continues more gradually, reaching around 100,000 kg.

Then there is a slight increase in 2023.

Chapter 03: A field study of Amor Benamor Mills

3-2 discussion of the quantity of waste:

The graph illustrates the comparison between two key categories related to waste management at Amor Benamor Mills.

Figure 10: presentation of the quantity of the waste sent to LANDFILL CENTER CLASS and the quantity of the waste sold (unit of measure KG)



Source: realized by the student based on internal document

The quantity of the waste sold consistently exceed the quantity of the waste sent to Landfill Center Class across all years except for the year 2022 because there was a cumulate of the quantity of waste that meant to be sold.

If Amor Benamor Mills were to throw all their waste into the landfill, it would indeed result in a huge financial loss.

The graph indicates that selling waste provides added value for the company. In essence, the graph serves as a testament to the effective waste management strategy adopted by Amor Benamor Mills, by demonstrating the economic benefits received from the sale of waste.

3-3 The results of calculating Economic Value Added (EVA):

Following the above-mentioned methodological steps

Chapter 03: A field study of Amor Benamor Mills

Table 08: the calculation of the Value Added (unit of measure DA)

Year	the selling price	the cost of production	VA
2018	8 506 753 568,86 DZD	7 275 153 841,83 DZD	1 231 599 727,03 DZD
2019	10 846 155 525,27 DZD	9 376 163 256,86 DZD	1 469 992 268,41 DZD
2020	8 346 129 821,66 DZD	6 673 314 548,76 DZD	1 672 815 272,90 DZD
2021	9 735 740 120,82 DZD	6 819 150 312,97 DZD	2 916 589 807,85 DZD
2022	3 804 982 796,47 DZD	2 370 554 395,89 DZD	1 434 428 400,58 DZD
2023	4 312 053 382,30 DZD	239 950 148,92 DZD	4 072 103 233,38 DZD

Source: realized by the student

Table 09: the calculation of EVA (unit of measure DA)

Year	the revenue of the company	EVA
2018	8 714 365 901,73 DZD	#VALEUR!
2019	11 185 772 107,14 DZD	0,02 DZD
2020	8 639 169 016,90 DZD	0,02 DZD
2021	9 307 234 782,30 DZD	0,13 DZD
2022	3 405 233 235,29 DZD	-0,44 DZD
2023	3 727 936 621,68 DZD	0,71 DZD

Source realized by the student

Table 10: The results of EVA

Year	EVA	comment
2019	0,02	there is a creation of value
2020	0,02	there is a creation of value
2021	0,13	there is a creation of value
2022	-0,44	there is a destruction of value
2023	0,71	there is a creation of value

Source: realized by the student

From the table we can see that the value of EVA varies from year to year and it is known that:

EVA >0 There is a creation of value

EVA <0 There is a destruction of value

Therefore, by calculating the economic value added in the previously mentioned period, a set of results was reached:

The EVA's inception in 2019 and 2020, with a value of 0.02, signalled a favourable beginning. However, an increase followed, the outstanding accomplishment of achieving an

Chapter 03: A field study of Amor Benamor Mills

EVA of 0.13 in 2021 is a remarkable milestone that validates the company's analysis and demonstrates its ability to improve performance.

with the EVA dropping to -0.44 in 2022. This downturn can be attributed to a combination of factors, such as the consequences of the political instability, the build-up of waste and the scarcity of raw materials, particularly wheat. The political turmoil may have created unstable market conditions and hindered the effectiveness of business strategies likely led to operational disruptions, reduced market demand, and pervasive uncertainty. Additionally, the accumulation of waste may have resulted in substantial costs or operational inefficiencies. Furthermore, the lack of raw materials was caused by Amor Benamor's cessation in importing it. As a result, production capabilities were likely compromised and the costs associated with obtaining alternative raw materials likely increased. This suggests a strategic error in the sourcing of raw materials, which had a negative impact on the company's financial performance.

There is a sharply increases in 2023 with 0.17. This success can be attributed to the strategic decision to capitalize on the sale of waste that cumulate from 2022, particularly plastic and cardboard, which likely contributed significantly to the increase. These initiatives highlight the company's efficient waste management practices or its exploration of innovative revenue streams.

Based on the above, we conclude that adopting sustainable practices not only benefits the environment but also positively impacts the company's overall value proposition. By integrating sustainable strategies into its operations, the company can achieve long-term success while minimizing negative environmental effects.

3-4 The interview analyses:

The interview addresses five primary themes regarding MAB's commitment to the environment, sustainable development, sustainable production methods, sustainable operations, and waste management procedures. Each theme is analyzed in detail below:

a) The MAB commitment to environment:

During the interview, Mr. Abd El Ghani OUARTSI provided an overview of MAB's product offerings, which include various types of pasta and couscous. The company employs 770 workers, distributed across different roles, including 13 senior managers, 130 executives, 148 control assistants, and 479 executors.

Chapter 03: A field study of Amor Benamor Mills

Mrs. Rahma BOUGHOLA confirmed that MAB is dedicated to preserving the environment for further development and holds ISO 9001 and ISO 22000 certifications, indicating adherence to quality management and food safety standards. MAB's commitment to environmental sustainability is demonstrated through its strategic adherence to internationally recognized standards. These certifications are not merely regulatory requirements but reflect a broader organizational culture that prioritizes environmental stewardship and quality assurance. The diverse product range further implies that MAB's environmental strategies must be adaptable and robust across different manufacturing processes.

b) The MAB approach to sustainable development:

The establishment of a specialized department for sustainable development within MAB signifies a strategic commitment to environmental issues. This organizational structure is crucial for the implementation of comprehensive sustainability policies and ensuring continuous improvement in environmental performance. The clear allocation of responsibility ensures accountability and facilitates the monitoring and enforcement of environmental standards. Mr. Abd El Ghani OUARTSI clarifies that the environmental department is responsible for ensuring compliance with environmental conditions.

c) Sustainable production methods:

MAB invests in technology to enhance its environmental protection efforts which use Waste management equipment (composting machine).

Emission control equipment (air filter).

Compressed air and hydraulic systems to avoid smoke degassing.

The use of specialized equipment demonstrates a commitment to reducing environmental impact through innovative production methods also the use of waste management and emission control equipment illustrates a commitment to mitigating the environmental footprint of their operations. This approach aligns with contemporary best practices in sustainable manufacturing, where technology plays a pivotal role in reducing environmental impacts.

d) The procedures of MAB in waste management:

According to Mr. Jamel HAMPLAOU, MAB generates various types of waste, including liquid, ordinary, special and hazardous, and solid waste. The waste is collected daily and stored in designated areas to prevent contamination. Specially for the oils, they put it in a metal container

Chapter 03: A field study of Amor Benamor Mills

or plastic deposited on wooden pallets to avoid the infiltration of chemicals. MAB's detailed waste management procedures reflect a robust system designed to handle various types of waste effectively. The daily collection and proper storage practices are critical for maintaining environmental safety and regulatory compliance. However, the challenge of employee awareness indicates a gap in the internal dissemination of sustainability practices. Addressing this through targeted education and training programs could enhance overall waste management efficiency and effectiveness.

e) **The MAB sustainable operations:**

The MAB adheres to a waste treatment process with the aim of re-valuing the waste, as it is collected within the institution where individual workshops produce their own waste. A license is issued specifying the type and quantity of waste. The waste is then sorted, processed, and disposed of in a timely manner based on its type, with each type of waste having its own set of regulations and being classified into:

➤ **Energy Consumption Optimization:**

The Amor Benamor Mills Company strives diligently and consistently to make optimal use of the available electrical energy resources necessary for its operations. This is achieved through several measures, including:

- Replacing incandescent bulbs with energy-efficient fluorescent bulbs.
- Turning off lights in unused areas.
- Replacing many small-sized bulbs with a single larger bulb.
- Maximizing the use of natural sunlight during the day by installing panels in the ceilings to allow light entry.
- The company also aims to explore renewable energy sources, specifically solar energy, although these projects are considered for the future.

➤ **Water Conservation and Pollution Control Measures:**

Water consumption at the Amor Benamor Mills Company primarily occurs during the following processes:

- Dough cooking.
- Irrigation of green spaces.
- Cleaning dough stamps.

Chapter 03: A field study of Amor Benamor Mills

Despite the fact that the company does not consume large quantities of water, it has implemented several measures to reduce consumption and prevent depletion of this vital resource. Some of these measures include:

- Exploring wells for utilization. However, the water from these wells has a high salt content and is unsuitable for use.
- Installing meters with accurate levels to monitor daily consumption.
- Providing daily consumption monitoring for each production unit

The Amor Benamor Mills Company utilizes water provided by the National Office of Irrigation. For water used in the production process, the company has a dedicated treatment unit that undergoes stages to meet the required specifications for use. Regarding water used for cleaning purposes, the company treats and filters it. Regular quality testing is performed on the discharged water to ensure compliance with environmental regulations. Additionally, every three months, the National Institute of Environment and Sustainable Development conducts unannounced visits to analyse industrial water in the Skikda province.

➤ **Air Pollution Control Measures:**

Air pollution poses a significant environmental risk to health. By reducing pollution levels, institutions can mitigate the burden of associated diseases. To address air pollution, the Amor Benamor Mills Company installs filters in its machinery to minimize emissions at all production stages. Regular monitoring occurs every three months, and surprise inspections are conducted by the National Institute of Environment and Sustainable Development specifically related to air pollution in the Annaba province.

➤ **Soil Pollution Control Measures:**

Waste generated by the institution is one of the major sources of environmental pollution. Therefore, the company has implemented measures to control and treat it. They either sell the waste and benefit from the proceeds or recycle it, using it as raw material in production.

Regarding the Amor Benamor Mills Company, like other institutions, it strives to manage its waste effectively by following these steps:

- Collecting waste of all types.
- Categorizing waste based on its level of hazard.
- Sorting the waste.
- Designating specific areas for waste disposal.

Chapter 03: A field study of Amor Benamor Mills

- Contracting with private companies for waste collection and recycling

Liquid Waste:

This refers to contaminated water resulting from the stamp cleaning process used by the establishment in pasta production. The establishment treats and filters this water before discharging it outside.

Ordinary Waste:

It includes removed stones from wheat purification and paper waste. These are disposed of by transporting them to a landfill center where they are incinerated along with the city's regular waste.

Special and Hazardous Waste:

This category includes oils, which are collected in containers. When the quantity reaches 1000 liters, a private company specializing in collecting and recycling used oils takes them. The establishment pays a fee for their disposal.

Hazardous Waste:

Batteries fall into this category and are disposed of through resale.

Solid Waste:

This category encompasses various materials:

- Plastic: Residual plastic from packaging and other processes is collected and then sold.
- Cardboard: It is disposed of through sales.
- Wooden Panels: Used panels are sorted, and those suitable for repair are recycled and reused. Broken panels are sold.
- Printer Ink Cartridges: These are collected and sold.
- Electrical Wire Cables: After electrical wires are no longer usable, they are recycled. Some are repurposed to make comfortable chairs, while the rest are given away for free.
- Burnt dough has two reuse options. If there is a significant amount, it is added to bran (Bran is extracted from the primary material). If there is only a small amount, it is ground and added to wheat.

MAB's sustainable operations reflect a multi-faceted approach to environmental management. The detailed strategies for waste treatment, energy optimization, and pollution control illustrate a comprehensive and integrated sustainability framework. The forward-looking plans for

Chapter 03: A field study of Amor Benamor Mills

renewable energy adoption and further certification signify a strategic like being confronted with the ISO 14001 environmental management system as Mrs Rahma BOUGHOLA said in her interview, these vision aligned with global sustainability trends. This holistic approach is critical for long-term environmental sustainability and resilience.

MAB demonstrates a comprehensive commitment to environmental sustainability through well-structured operational practices and strategic planning. The company's adherence to international standards, investment in advanced technology, and detailed environmental strategies illustrate a robust sustainability framework. However, the identified challenges in employee awareness highlight areas for potential improvement. Overall, MAB's approach serves as a model for integrating sustainability into business operations, aligning with global best practices and future environmental goals. This analysis provides a detailed understanding of MAB's sustainability initiatives across multiple dimensions:

1. **Commitment to the Environment:** Evidenced by their product range, workforce structure, and ISO certifications.
2. **Sustainable Development:** Institutionalized through a dedicated department and clear responsibilities.
3. **Production Methods:** Use of advanced equipment to minimize environmental impact.
4. **Operations:** Comprehensive measures in waste treatment, energy use, water conservation, and pollution control.
5. **Waste Management:** Structured processes for managing different types of waste, with a focus on proper storage and overcoming obstacles related to employee awareness.

3-5 The importance of implementing sustainable practices:

a) Recycling:

Recycling involves the utilization of two types of waste in the same workshop to be processed as leftovers. These include raw materials, as well as any materials that have been affected by technical malfunctions, power outages, production delays, or poor quality. In the event that the raw materials are spoiled in large quantities, the institution does not discard them but instead employs special machines to convert the remains into ground bran, which can then be used as animal feed and food. This practice helps to minimize financial losses while also preserving the environment.

Chapter 03: A field study of Amor Benamor Mills

b) realize savings from the sale of waste:

- Reduction in energy consumption and raw materials.
- Realize the profit from the sale of waste products such as used oils, wood, plastic bags and cardboard.
- Reduction of waste disposal and transportation expenses.

c) Reduce Costs:

MAB has also acquired new means to eliminate insects, mice and others both in the air and on the ground. Which can gather around the dough, as if there is an insect in the bag, it will reflect negatively on them. It may lead to a deterioration of the reputation of the firm and an increase in the costs of reproduction, and therefore the departure of a premium food product from it is in line with the international reputation of Amor Benamor Mills.

Chapter 03: A field study of Amor Benamor Mills

Conclusion of the chapter:

Through a comprehensive practical study, this chapter has aimed to illuminate the significance of sustainable development within industrial institutions, focusing particularly on Amor Benamor Mills in the state of Guelma.

Beginning with an introduction to the company and an evaluation of its environmental effectiveness, theoretical aspects related to sustainable practices were extrapolated into the institution. The investigation unveiled various measures implemented by Amor Benamor Mills to mitigate pollution, aligning with environmental laws and regulations. Notably, the company diligently manages its waste output. Furthermore, there is a growing awareness of the importance of environmental preservation, making it everyone's responsibility. As evidenced by the findings, Amor Benamor Mills strives to maintain environmental standards in accordance with established laws and aims to obtain ISO 14001 certification.

In essence, this chapter underscores the company's objectives, which extend beyond mere profitability it aims to enhance its reputation, gain a larger market share, and preserve the environment.

General Conclusion

General conclusion

General conclusion:

The exacerbation of environmental problems, such as pollution and global warming, has sounded the alarm worldwide, necessitating the search for solutions to address these threats that endanger all life on Earth. Before implementing solutions, it is crucial to identify the causes, which can largely be attributed to industrial activities worldwide. These activities result in emissions and waste that pose risks to the environment.

Algeria is considered a country lagging behind in environmental protection, especially in terms of modern technology for environmental conservation. Nevertheless, Algeria is striving to develop in this field through various approaches, including imposing environmental laws and regulations on institutions to mitigate pollution risks. It is certain that adopting environmentally sustainable practices plays a significant role in creating value for institutions and maximizing its value.

Our study aimed to determine how the use of sustainable practices influences the creation of value for the company Amor Benamor Mills. Amor Benamor Mills is an Algerian company that produces semolina and pasta. For this reason, we chose it as a case study for our work.

Moreover, the following main problem has been posed:

What is the impact of sustainable operations on improving value creation in food industry?

As Amor Benamor Mills adopt the sustainable operations in its strategy so the objective of our research is to examine the environmental commitment of MAB and the benefits derived from it as well as to assess the awareness of workers of the importance of the environment.

In order to treat our theme, we first appealed to the theoretical notions with the first chapter covering the basic concepts of sustainable development, sustainability in food industry, Algeria's effort to support sustainability. In the second chapter we focused on the value creation in business and its relationship with sustainability.

The study carried out allowed us to achieve our set objectives and **confirm our three hypotheses:**

- Yes, Amor Benamor adopts sustainable practices .

General conclusion

- Amor Benamor Mills strives to reduce waste by recycling and pollution by using machines equipped with filters.
- The implementation of sustainable operation practices has improved the value creation of MAB.

After analysing of the data collected, our study led to the following results:

With regard to the integration of sustainable operations into the company's activity well Amor Benamor Mills has implemented an extensive waste management system that involves waste categorization and the adoption of various environmental practices. These efforts encompass energy optimization, water conservation, air pollution control, and soil pollution management.

Waste is classified into distinct categories, including liquid, ordinary, special/hazardous, solid, and industrial waste.

Each category undergoes appropriate treatment or disposal methods. These practices reflect the firm's dedication to environmental practices and compliance with regulations. And that is confirm the first and second hypothesis of our research.

In regard for knowing the relationship between the commitment to sustainability and value creation we analyse the results of EVA and the quantity of different waste.

Amor Benamor Mills indicates a consistent trend of selling more waste than disposing of it in landfills, highlighting the financial risk of disposing all waste in landfills and emphasizes the value gained from waste sales.

For the Economic Value Added that reached a peak value in 2023, validating strategic decisions related to waste sales and efficient waste management practices.

Overall, embracing sustainable practices not only enhances environmental stewardship but also positively impacts the company's financial performance and long-term success. And that is what confirm our third hypothesis of our research.

During the research, some difficulties were encountered, the most important of which were:

- The lack of references that specialized in sustainable development in the food sector.
- The difficulty of dealing with the frames of the firm for their secrecy on some useful information for the study.
- The confidentiality of the majority of the firm's documents and the difficulty of accessing them.

General conclusion

- Instability of the political situation of the company.

The prospects of the study:

- Examine the influence of consumer perception of sustainability on their purchasing choices and the subsequent value creation for businesses.
- Investigate how innovation and technology can enhance and develop sustainable operations.
- Study the impact of various stakeholders on a company's sustainability practices and how they are, in turn, affected by these practices.

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Annexes

Annex N°01: The interview guidance

Interview guidance of the Health, Safety and Environmental responsible:

- 1-Do the company work for the protection of the environment?
- 2- Is there a special department for sustainable development?
- 3- What certificate do you have?
- 4- Are you using a developed equipment in production that helps to protect the environment?
- 5- How often do you collect the different waste?
- 6- What are the storage condition for the different kind of waste?
- 7- Does the firm develop environmental plans that it seeks to achieve? And what are they?
- 8- In the context of environmental protection is there an increase or a decrease in costs for the company?
- 9- What are the sustainable operations that you do?
- 10-The obstacles that confront you in the waste studies process?

Interview guidance of the Management of Human Resources:

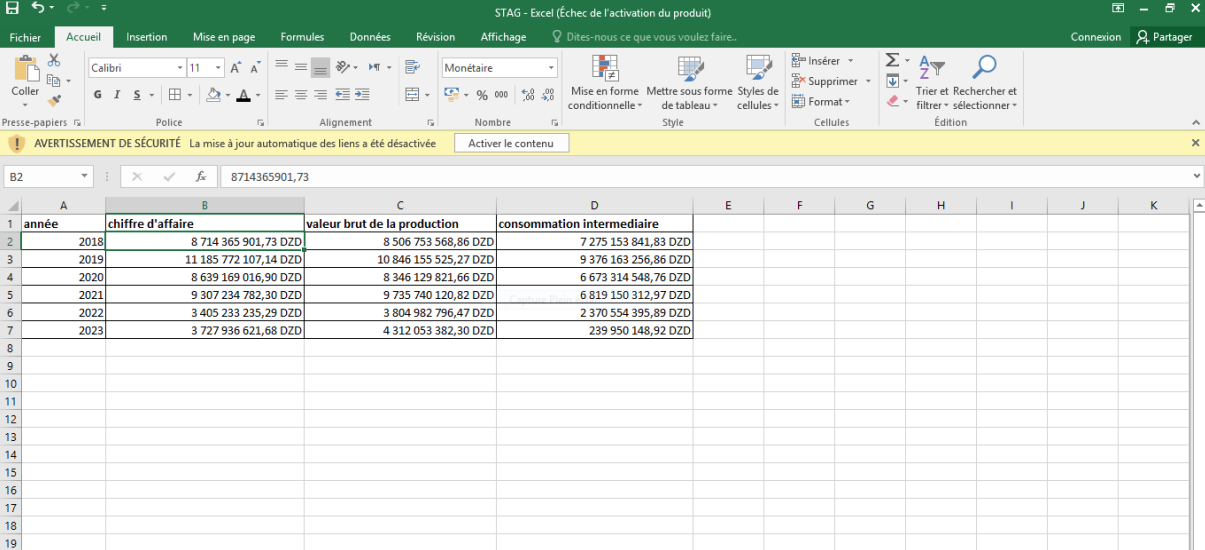
- 1-Can you briefly introduce the business activities (system)?
- 2-How many employees do you have in each sector?
- 3- When was the last time you recruited someone? Did you do a formation about the environment?
- 4- Who is responsible for directing and supervising workers to respect and apply environmental conditions?

Interview guidance of the production responsible:

- 1-How was the quantity of production evolved over the years?
- 2- What are the residues of the production process? And how are they treated?
- 3- Do you separate the waste?

Table of content

Annex N°02: Table of a necessary information to calculate EVA.



The screenshot shows an Excel spreadsheet with the following data:

année	chiffre d'affaire	valeur brut de la production	consommation intermediaire
2018	8 714 365 901,73 DZD	8 506 753 568,86 DZD	7 275 153 841,83 DZD
2019	11 185 772 107,14 DZD	10 846 155 525,27 DZD	9 376 163 256,86 DZD
2020	8 639 169 016,90 DZD	8 346 129 821,66 DZD	6 673 314 548,76 DZD
2021	9 307 234 782,30 DZD	9 735 740 120,82 DZD	6 819 150 312,97 DZD
2022	3 405 233 235,29 DZD	3 804 982 796,47 DZD	2 370 554 395,89 DZD
2023	3 727 936 621,68 DZD	4 312 053 382,30 DZD	239 950 148,92 DZD

Table of content

Annex N°03: The quantity of waste sent to the LANDFILL and the quantity of waste sold.

LA QUANTITE DES DECHETS ENVOYE VERS LE CENTRE D ENFOUISSEMENT CLASS II BOUGERGAR DECHETS MENAGERS

	2019	2020	2021	2022	2023
QTS KG	571930	343822	151560	60240	60800

LES QUANTITES DES DECHETS VENDUS

	2019	2020	2021	2023
Q plastique	771930	295607	169566	168349
Q carton	40070	80205	38764	29900
Q palletes case	680	7842	4350	5643
total	812680	383654	212680	203892

Table of content

Annex N°04: The quantity of production from the year 2019 till 2023.

PRODUCTION 2019		
UNITE SEMOULERIE		
Désignation	U.M.	Entrées
		Qté
Total Semoule		242 359,14
UNITE PATES & COUSCOUS-Marché Local		
Désignation	U.M.	Entrées
		Qté
		103 867,89
UNITE PATES & COUSCOUS-Export		
Désignation	U.M.	Entrées
		Qté
		487,01
Total Générale		104 354,90

PRODUCTION 2020

Production de la Semoulerie:

Code	Désignation	U.M.	Production
Totaux			172 843,42

Production unité pâtes alimentaires :

Code	Désignation	Production
Totaux		72 138,97

PRODUCTION 2021

Production de la Semoulerie:

Code	Désignation	U.M.	Production
Totaux			144 863,30

Production unité pâtes alimentaires :

Code	Désignation	Production
Totaux		62 851,35

PRODUCTION 2022

Production de la Semoulerie:

Code	Désignation	U.M.	Production
Totaux			78 714,20

Production unité pâtes alimentaires :

Code	Désignation	Production
Totaux		14 040,33

Production 2023

Production de la Semoulerie:

Code	Désignation	U,M	Production
totaux			153856.15

Production unité pates alimentaires:

Code	Désignation	Production
Totaux		43864.12

Table of content

Abstract	
Dedication	
Acknowledgement	
List of tables	
List of figures	
List of annexes	
Abbreviation	
Summary	
General introduction.....	02
Chapter 01: Theoretical framework of sustainable operations.....	06
Section 01: Basic concepts of sustainable development	07
1-1 The origins of sustainable development	07
1-2 Concepts and definitions.....	09
1-3 Measurement of sustainable development	14
Section 02: The integration of sustainable operations	15
2-1 Algeria's effort to support sustainability	15
2-2 The mechanism for integrating sustainable operations into the company's activity.....	16
2-3 The relationship between product life cycle and sustainable operations.....	18
Section 03: The advantages of integrating sustainable operations into the company's Activity	21
3-1 Dimensions of sustainable development	21
3-2 The advantages the company get by following the environmental orientation	23
Conclusion of the Chapter	26
Chapter02: Creating company's value.....	28

Table of content

Section 01: basic concepts about value creation	29
1-1 concepts and definitions	29
1-2 The process of value creation	30
1-3 Dimensions of value creation.....	32
Section 02: Value creation and company	34
2-1 Value creation in business	34
2-2 The types of value created by the company	34
2-3 The importance of value creation	37
Section 03: Evaluating sustainable operations and their relationship to value creation	39
3-1 The factors that contributed to the development of company's interest in using sustainable development	39
3-2 The impact of sustainable operations on value creation in food industry.....	41
Conclusion of the Chapter.....	43
Chapter 03: Afield study of Amor Benamor Mills	45
Section 01: Presentation of Amor Benamor Mills	46
1-1 The history of the Amor Benamor Group	46
1-2 Presentation of Amor Benamor Mills	46
1-3 The SWOT analyse	50
1-4 The main competitors of Amor Benamor product: ON EAST WEST SOUTH CENTER	51
1-5 Quality, Health, Security, Environment department	51
Section 02: The presentation of the methodology of the practical study	56
2-1 Presentation of the study	56
2-2 The methodology of data collection and processing.....	57
Section 03: Discussion of the results	61

Table of content

3-1 The production quantity	61
3-2 Discussion of the quantity of waste	62
3-3 The results of calculating economic Value Added EVA	62
3-4 The interview analyses	65
3-5 The importance of implementing practices	70
Conclusion of the Chapter	71
General conclusion.....	73
Bibliography	77
Annexes	83