Report On

Change in Managerial decision-making through data analysis. A thorough analysis of Nestle.

By

Joy Dam
16304135

Bachelor of Business Administration

BRAC Business School
BRAC University
June, 2021

Declaration

It is hereby declared that

1. The internship report submitted is my/our own original work while completing degree at Brac University.

2. The report does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.

3. The report does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.

4. I/We have acknowledged all main sources of help.

Student's Full Name & Signature:

Joy Dam

_____

Student Full Name

Student ID : 16304135

Supervisor's Full Name & Signature:

Tania Akter

_____

Supervisor Full Name

Lecturer, BBS Department

Institution : Brac University

Letter of Transmittal

Tania Akter

Lecturer

Brac Business School

Brac University

66 Mohakhali, Dhaka-1212

Subject: Submission of Internship report titled "Change in Managerial decision-making through data analysis. A thorough analysis of Nestle".

Dear Madam,

This is a pleasure to submit the internship report "Change in Managerial decision-making through data analysis. A thorough analysis of Nestle" under your supervision as a part of the BUS 400 course required to complete a BBA degree at BRAC Business School.

I made every effort to complete the report with the necessary facts and the proposed suggestion in the most meaningful, compact, and thorough manner.

I am certain that the report will fulfill the expectations.

Sincerely yours,

_____

Joy Dam

16304135

BRAC Business School

BRAC University

June 05, 2021

Non-Disclosure Agreement

This agreement is made and entered into by and between Nestlé Bangladesh and the undersigned student at BRAC University, Joy Dam.

Executive Summary

Nestlé Bangladesh is one of our country's major multinational corporations. It first opened its doors in Bangladesh in 1994. They are generally involved in the food, beverage, and nutrition industries. Nestlé has provided a wide range of goods and services for individuals over two decades. Also, Nestlé has worked extensively with the communities in which we operate, giving farmer training, improving livelihoods, teaching children and their families on good nutrition, and helping to promote environmental sustainability. Quality and safety is the top priority for Nestlé Bangladesh, which applies to every product. Nestlé Bangladesh, with the promise of Good Food, Good Life, continues to innovate throughout its product categories to improve people's quality of life and contribute to Bangladesh's brighter and healthier future.

In this report, I focused on the change in managerial decision-making using data analysis. I have worked as a sales intern in Nestlé. My main work was to make sales reports, year-to-date reports, daily stock reports, and productivity reports and run them to Power BI query to visualize data, which helps the management make essential decisions.

Moreover, I researched 24 people working in managerial positions to get a more in-depth idea about the usefulness of decision-making. This report was prepared to maintain all the guidelines provided by Brac University and based on my journey and learning, which I gathered from Nestlé Bangladesh. I'm hoping that my report will give some insight into all of the tasks I had as an intern. With restricted access to data owing to confidentiality, I attempted to offer as much knowledge as possible on the work I was involved in while working at Nestlé Bangladesh.

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Overview of Internship

1.1 Student information:

Name	Joy Dam
Student ID	16304135
Program	Bachelor of Business Administration
Major/Specialization	Major in Marketing, Minor Computer Information Management.

1.2 Internship Information:

1.2.1 **Company Information**

Period	March 2021 – June 2021
Company Name	Nestlé Bangladesh
Logo	
Department	Sales
Address	NINAKABBO Level 4, 227/A Tejgaon-Gulshan Link Road, Tejgaon Industrial Area, Dhaka 1208, Bangladesh.

1.2.2: **Internship Company Supervisor's Information**

Name	Mohammad Nasir Uddin
Position	Sales Analyst
Email	Nasir.uddin2@bd.nestle.com

1.2.3 Job Scope – Job Description/Duties/Responsibilities

In Nestlé Bangladesh, I have worked as a Sales intern in the sales department. As a Sales intern, I had to work with the sales team regularly. I had to download sales reports from the Nestlé portal every day and reviewed sales performance against sales targets. Also, I helped my supervisor make sales reports at the end of the month, enabling management to make crucial decisions.

Also, I was responsible for updating documents and sales records in the Nestlé portal. Analyzing the sales data, I had to make a report to rank the distributors according to their performance.

1.3.1 Student's contribution to the company:

The internship program is the learning process for undergraduate students before entering the corporate world. A student can learn about the corporate environment, gains real-world experience, and contributes to the organization's growth. Apart from that, Nestlé allowed me to contribute ideas for the organization's development. I learned a lot about how the job market works during this period. During the three month internship, the Student assisted with the following business activities for Nestlé:

- Prepared weekly and monthly sales report using Excel and made visual representations of the sales data using Power BI.
- Conducted corporate grooming sessions on Excel for the other interns.
- Achieved the sales target for three months.
- Solved various minor problems using my problem-solving skills.
- Made sales reports for 30 different brands.

1.3.2 Benefits to the Student:

The internship program helps the student to learn lots of things that they can't learn from textbooks. Students can gain practical knowledge and gets the idea about the corporate World doing the internship program. Students learn about leadership skills, time management skills, and problem-solving skills during the internship, which will eventually help them. Aside from these related statements, the Student gains certain unique benefits.

- It helps students to build a professional network.

- Students can improve and practice industry skills while doing the internship.

- Internship helps students to gain professional softs skills such as time management, punctuality, communication.

- Internship experience gives an edge in the job market to fresh graduate students.

- A good recommendation can be obtained for a graduate to use for future jobs, college enrollment, and scholarship applications.

1.3.3 Problems/Difficulties:

Nestlé Bangladesh has a tremendous working environment. Due to Covid-19, all the interns had to work from home. Regularly HR contacted us and asked about our health and family situation. Also, my supervisor treated me as a little brother and always made work easy for me. During this 3-month internship program, I never faced any difficulties because of the guidance from my supervisor. He always advised me and guided me. Apart from that, all the interns had HR buddies, and their primary responsibility was to help us if we ever had faced any problems. By evaluating all these things, I never faced any issues or difficulties throughout my internship program,

Chapter 2

2.1 Introduction
Origins of Nestlé

1866-1905:Nestlé was founded in 1866 as an Anglo-Swiss milk company by two brothers George and Charles Page, in Cham, Switzerland. Two brothers establish Europe's first production facility for condensed milk as an alternative to fresh milk. In 1867 Nestlé founder Henri Nestlé who is a German Born pharmacist, launches his 'farine lactéé' which was (flour with milk). It was made from cow milk, wheat flour, and sugar, and Nestlé created it for children who cannot be breastfed to combat high death rates. To expand production and sales, Henry Nestlé sold his company to three local business people in Vevey. Nestlé and Anglo-Swiss face fierce rivalry as both firms begin offering competing varieties of the other's initial products: condensed milk and baby cereal. Both companies are expanding their international markets and output. Anglo-Swiss expanded its business in the United States in 1882, but the death of George Page thwarted its hopes. As a result, they sold their US-based operations in 1902, laying the foundation for a future merger with Nestlé. Nestlé takes over Peter & Kohler's export sales; Nestle started to sell chocolate for the first time (Nestlé, n.d.).

1905-19013: Nestlé and Anglo-Swiss come together to create the Nestlé & Anglo-Swiss Milk Company. In Vevey, Cham, and In London, the company has three head offices to increase dairy export sales (Nestlé, n.d.). Over time, the company's product line has expanded and included sugar-free condensed milk and sterilized milk.

1914-1918: In 1914, demand for condensed milk and chocolate increases due to the outbreak of war, but a lack of raw material and restrictions on cross-border trade obstruct Nestlé and Anglo-Swiss production. The demand increases for condensed milk among the army because of the long-lasting taste and eases to transport (Nestlé, n.d.). So to tackle this problem, Nestlé starts purchasing manufacturing facilities in the United States and Australia, and by the end of the, it has 40 factories.

1921-1938: After the war ends, the demand for canned milk decreases among the army. Also, Nestlé faces first-ever financial loss due to falling prices and high stock. Nestlé appoints banker

Louis Dapples as a crisis manager to solve this crisis, and he motivates the company to appoint professional managers. The corporation improves but is again shaken by the 1929 Wall Street Crash, decreasing customer buying power. Moreover, the period has its advantages: the company's management staff is professionalized, research is organized, and groundbreaking innovations such as Nescafé coffee and Milo are introduced (Nestlé, n.d.).

1942-1947: The Second World War in 1939 affects almost every industry, but Nestlé & Anglo-Swiss work under strict conditions, serving citizens and military services. Nestlé Alimentana is founded in 1947 when the company introduces Maggi soups and seasonings to its product line (Nestlé, n.d.).

1948-1959: People in the USA and Europe spend money on devices that make life simpler, such as refrigerators and freezers, during the postwar period. They also choose ready meals. Nestlé Alimentana meets with recent brands such as Nesquik/Nestea and Maggi-ready meals (Nestlé, n.d.).

1960-1980: Nestlé's acquisitions allow it to penetrate fast-growing emerging markets such as frozen foods while expanding its existing businesses such as milk, coffee, and canned foods. The group extends into pharmaceuticals and cosmetics in the 1970s. Nestlé faces criticism and pressure from the activist group who claims that baby food is unethical. Nestlé becomes one of the first businesses to implement the WHO code on breast-milk replacements throughout its entire business (Nestlé, n.d.).

1981-2005: Following years of expansion, Nestlé divests unprofitable products and supports those that meet the needs of increasingly health-conscious customers, in line with its recent 'Nutrition, Health, and Wellness' ambition. The corporation is spreading in the United States, Eastern Europe, and Asia to become a world leader in water, ice cream, and animal food (Nestlé, n.d.).

2006-2020: Nestlé illustrates its Building Shared Value market approach for the first time and implements Nestlé Cocoa Plan and Nescafé Plan to improve viable cocoa and coffee distribution networks (Nestlé, n.d.). Nestlé emphasizes medical nutrition while enhancing its conventional markets such as baby formula and frozen foods.

Vision: To become a pioneering, dynamic, Nutrition, Health, and Wellness Company that increases shareholder equity by becoming a preferred corporate citizen, preferred employer, preferred provider, and select seller of desired goods (Nestlé, n.d.).

Figure 1 Nestlé Operational Pillars.

Source: https://nestleanalysis2019.wordpress.com/2019/01/20/operations-strategy/

Mission: Our "Good Food, Good Life" aims to provide customers with the most delicate tasting, most healthy options in various food and beverage segments and eating occasions, from morning to night (Nestlé, n.d.).

Values:

- Taking care of people
- Awarding good work

- Being transparent at all times

- Bringing new ideas to life

- Putting heart at heart, we do

- Doing ethical business way
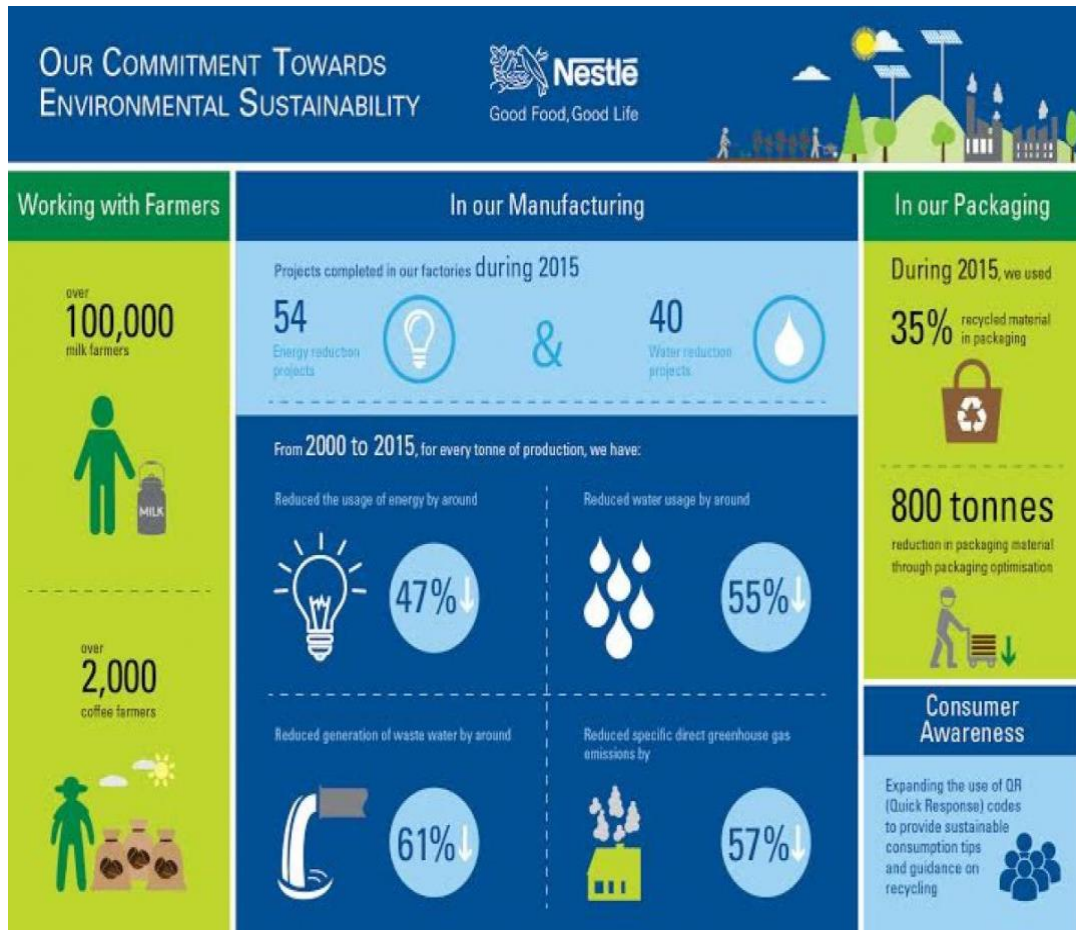
Figure 2 Environmental Sustainability

Source: The Hans India : https://www.thehansindia.com/posts/index/Environment/2016-06-04/Environmental-sustainability-Nestle-cuts-energy-and-water-use-by-over-45/232785

Tagline: Nestlé's tagline is "Good Food, Good Life (Nestlé, n.d.)."

2.2 Company Overview

Nestle Bangladesh LTD

Nestlé Bangladesh started its journey in Bangladesh as a joint venture between Transcom Limited and Nestlé S.A in 1992. Nestlé Bangladesh Limited began commercial operations in 1994 with the establishment of the first factory in Sreepur. In 1998, Nestlé Bangladesh became a wholly-owned company of Nestlé S.A. Nestlé Bangladesh has provided a wide range of goods and services for people at all levels of life over the last two decades, assisting them in taking proper care of themselves and their families. We also worked closely with the communities where we function, ensuring farmer preparation, improving livelihoods, educating children and youth on good nutrition, and successfully encouraging environmental sustainability (Nestlé_Bangladesh_Report; Nestlé, n.d.).
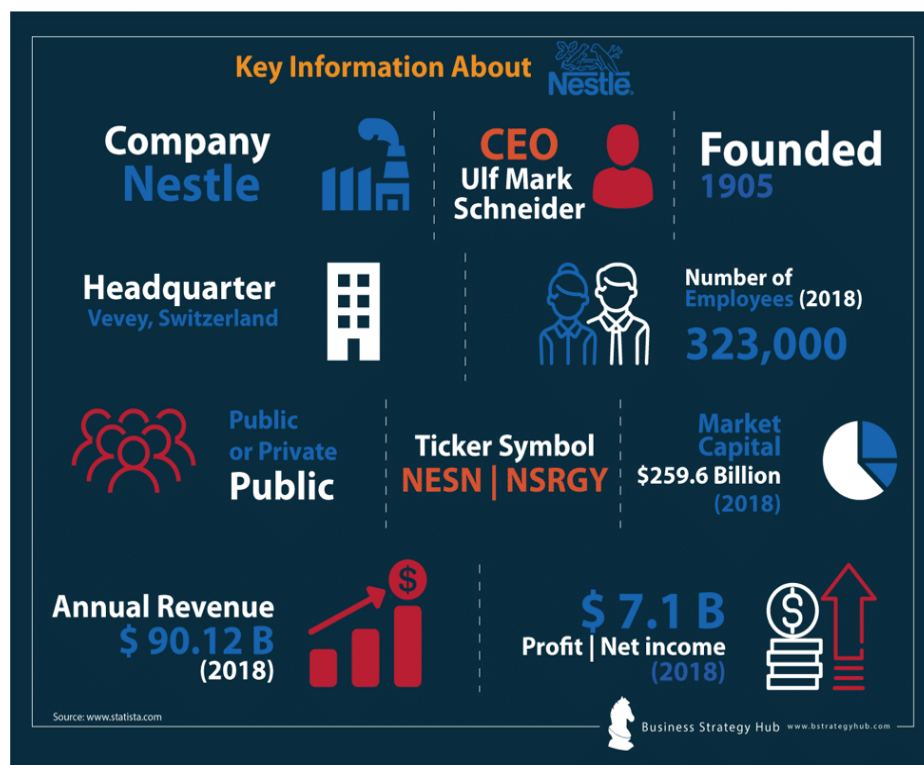
Figure 3 Key Information About Nestlé

Source: The Business Strategy Hub: https://bstrategyhub.com/nestle-swot-analysis-2019-swot-analysis-of-nestle/

Products Of Nestlé Bangladesh:

Dairy	Nestlé Every day, NIDO Forti Grow, Nestlé MILO
Foods	Maggi Noodles Maggi Soup, Maggi seasoning
Baby Foods	Nestlé Ceregrow Lactogen, NAN
Beverages	Nescafé Classic Nescafé 3 in1 Nescafé creamy latte Nestlé Coffemate NESTLÉ FRUITA VITALS Nestea
Breakfast Cereals	Nestlé Gold Cornflakes Nestlé KOKO KRUNCH Nestlé KOKO KRUNCH DUO Nestlé Milo cereal

Table 1 Nestlé Products in Bangladesh

Source: Nestlé Bangladesh : https://www.nestle.com.bd

Nestlé Head Office Overview:

Nestle Bangladesh head office is located in NINAKABBO building which is situated in Tejgaon industrial area in Dhaka. More than 160 employees are working in its office. The interior of the office is dynamically built to comply with Nestlé's three central Creating Shared Value (CSV) pillars: the green theme of Level 4 represents 'Nutrition,' the yellow theme of Level 5 represents 'Rural Growth,' and the blue theme of Level 6 represents 'Water.' This provides the perfect setting for Nestlé Bangladesh's close-knit team to run. Together, this dynamic workspace sums up the Nestlé Bangladesh ethos (Nestlé, n.d.).

Figure 4 Nestlé Head Office in Bangladesh

Source: Nina Holding LTD: http://www.ninaholdings.com/project-details.php?Id=10

Nestlé Factory Overview:

Nestlé Bangladesh factory is situated in Sreepur, Gazipur. It is located approximately 55 kilometers north of Dhaka and is next to the Rajendrapur Cantonment. The factory features cutting-edge production facilities, such as an exquisitely built social block for all workers, a redesigned water use and recycling scheme, and multiple architecturally outstanding assembly and packaging lines for world-renowned products such as CERELAC, NESTLÉ EVERYDAY, and NESTLÉ KOKO, LACTOGEN, MAGGI, NESCAFÉ, and NESTLÉ NIDO. Nestlé Bangladesh's 2030 goal of "striving for zero environmental effects in our activities" is at the root of all manufacturing processes (Nestlé, n.d.).

2.3 Management Practices:

Day by day, people's trust in Nestlé products is increasing. To meet the customer's demand, Nestlé employees and the management team work hard (Nestlé_Bangladesh_Report).

2.3.1 Research and Development: Nestlé Bangladesh constantly researches the product before launching it for the Bangladeshi citizen because every culture has different norms and tastes. For example, Asian people like spicy food; that's why Nestle Bangladesh introduced a new noodles segment, Masala Maggi noodles. Also, it helps to identify the most suitable product for consumers and helps to understand consumers needs and preferences.

2.3.2 General Management: General management takes all the crucial decisions and looks after the overall operations of Nestlé Bangladesh. They look after the reports, data, surveys, and after carefully looking and discussing with the management team, they take the crucial decisions for better growth of Nestlé (Nestlé_Bangladesh_Report).

2.3.3 Human Resource: HR team focuses on the management of employees, recruitment and selection process, training and development, performance evaluation, managing payment, and other benefits. The HR team has the most important job because the people they are recruiting will play a significant role in the development of Nestlé (Nestlé_Bangladesh_Report).

2.3.4 Supply Chain: Nestlé Bangladesh's supply chain department always focuses on the LEAN method of working, which means no waste of cost, time, and process. The supply chain team maintained efficient inventory planning to reduce material waste. Also, it focuses on shorter production lead times to minimize the waste and do cost management for vendors by tough bargaining to reduce spending waste (Nestlé_Bangladesh_Report).

2.3.5 Marketing: Nestlé marketing team is responsible for looking after the established brands, market share, and product growth. The marketing team carefully maintains the law before doing any marketing campaign or advertisement. For example, In Bangladesh marketing of CERELAC, LACTOGEN is banned because these products are alternatives to breast milk. As a result, the Nestlé team uses doctors to promote baby products (Nestlé_Bangladesh_Report).

2.3.6 Sales and Nestlé Professionals: They are in charge of generating revenue for the business, but transactions are handled by retail dealers, while Nestlé Professionals handle corporate sales. Also, the sales analysis officer looks after the sales data and makes sure that Nestlé achieves its sales target (Nestlé_Bangladesh_Report).

2.4 Marketing Practices

The company's corporate image is "Nestlé is all about consistency." It places little emphasis on promotion and advertising because customers in Bangladesh already understand that Nestlé prioritizes product quality over costs (Business Strategy Hub, 2021). Nestlé primarily relies on two campaign objectives:

1. Informative Advertising

2. Persuasive Advertising

Nestlé does not place a high value on marketing and advertising because it is already a well-known and high-quality food product corporation in Bangladesh. Here are a few things to think about when it comes to Nestlé Bangladesh Ltd. advertising:

- Nestlé cannot do advertising or promotional campaign for infant milk.

- Only new goods are subjected to mass ads.

- Advertising methods and techniques vary from product to product.

- Use Nescafé coffee vending machine in educational instruction, corporate offices to do marketing.

- More involved in food testing and analysis Nestlé sampled Nescafé in 2003 for testing purposes.

- Due to Covid-19, Nestlé started to sell their products through Chaldal and Pandamart.

Nestlé Bangladesh Ltd. works with specialist companies for advertising purposes. They are as follows:

- Nescafé - Unitrend
- Milo - (25%) Unitrend
- Maggi - Protishobdo
- Polo – Protishobdo

2.4.1 Market Segmentation: Understanding consumers and meeting their demands differently than rivals is central to the marketing philosophy. However, different individuals have different desires, and it is practically impossible to please both customers by handling them almost the same way (Business Strategy Hub, 2021). The following consumer segments are:

1 **Geographic**: Nestlé Bangladesh introduced Nescafé ice because thinking about the weather of Bangladesh. During the warm season, customers drink this coffee with hot or cold water and an ice cube to refresh their minds.

2 **Demographic:**
   - **Income:** Nestle effectively sectioned their segment based on consumer revenue. Some Nestle items are targeted at people with a comparatively high-income level, such as KitKat Chocolate and Cornflakes (Business Strategy Hub, 2021). In contrast, others are targeted at people with low-income status, such as Maggie Shaad-E Magic.
   - **Age:** Nestlé divided the demand for its leading brands into age groups. For example, Nido, Nesquick, KOKO Krunch, and Lactogen

3 **Psychographic:**
   - **Lifestyle and personality**: Nestlé introduced 2 minutes Maggi noodles for busy moms. It will help mothers to make an evening snack or dinner easily within 2 minutes. Nescafe 3 in 1 is just for consumers who are extremely busy and do not have the time

(Business Strategy Hub, 2021). They will save time by consuming Nescafe 3 in 1. Sugar, tea, and coffee are all combined.

4 **Behavioral**:

- **Benefits**: Nestle Bangladesh effectively divided their business based on advantages. As a result, they give Cerelac to consumers who wish to reap additional value from their brands. Cerelac contains a high level of nutrients for babies under the age of one year.

Figure 5 Marketing Campaign of Kit Kat

Source: Pinterest : https://www.pinterest.com/pin/188095721922862538/

2.6 Operations Management and Information System Practices

A firm's operations can be seen as a supply chain comprising several distinct value creation processes such as manufacturing, sales and advertising, operations management, research and development, human resources, computer technology, and firm infrastructure (Business Strategy Hub, 2021).
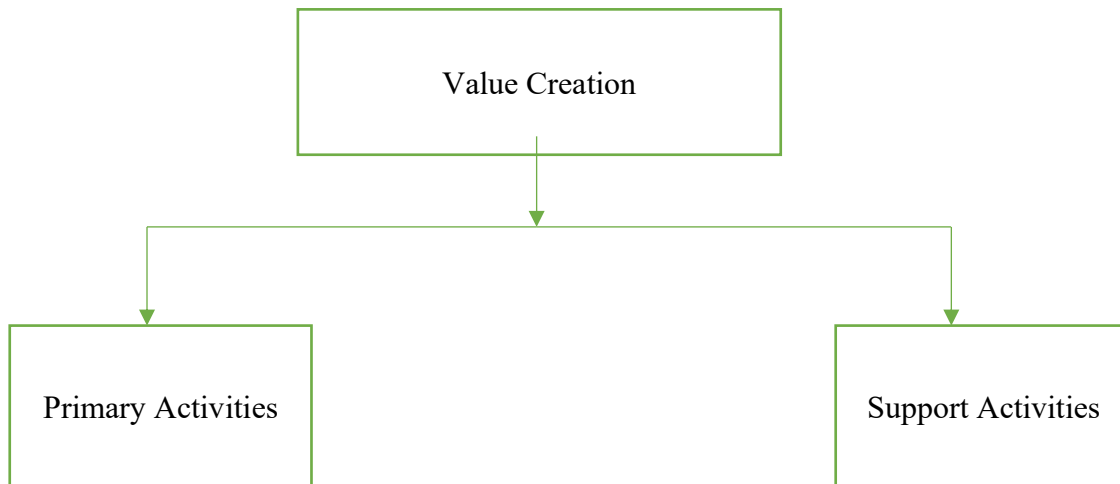
Table 2 Value Creation Method

1. **Primary Activities**: These operations are related to the product's design, development, and distribution, as well as its promotion, support, and after-sales operation (Nestlé_Bangladesh_Report). All are classified into four categories:

- Research And Development

- Manufacturing

- Marketing and Sales

- Customer service

2. **Secondary Activities:**

- Advanced technology for managing inventory

- MIS portal (Dishari) to maintain and keep the information and data.

- Tracking sales and set price for products

- Selling the products

- Dealing with customers and distributors.

2.7 Industry and Competitive Analysis

2.7.1 Swot Analysis

Strengths:	Weakness:
- A range of products that is still responsive to the customer. - Internal development is high, and there is a strong focus on innovations. - There is a particular focus on the quality and safety of the products. - A centralized organization assists in the easier coordination of corporate operations. - An extensive distribution system makes it easier to get Nestlé products in urban and rural areas. - Nestlé is considered the World's most valuable brand according to 2018 Forbes global. - Nestle invests heavily in sustainable management policies and takes innovative steps to improve product quality. - Consumer and brand range is widely diversified, which reduces the fluctuations of the company's performance and improves productivity.	- Maggi Noodles controversy caused an 80% market share loss in India and eventually hampered the brand image. - Nestle was recently accused of secretly extracting millions of liters of water in six countries where people lack access to safe drinking water. - Nestlé's prices on some of its brands are higher than among its rivals. - Nestlé faces problems in managing warehouse storage and less control on raw material prices. - The wide range of brands makes decision-making challenging sometimes.

Opportunities:	Threats:
• Demand for healthier food products is increasing.	• Competitors are running more aggressive commercials and promotions.
• Nestlé Bangladesh can increase the availability of Infant Nutrition Products throughout Bangladesh.	• Many consumers dislike the price of the product.
• Can sell certain products at a lower price so that a large number of consumers can buy them.	• There are a few local producers that sell their goods at a lower price by different immoral means.
• Launch the goods with the integration of social and cultural influences by matching the taste buds of Bangladeshi consumers.	• Due to Covid-19 distribution system can get interrupted.
• Can use the E-commerce platforms to sell products to consumers.	• Government policies can hamper the business operations of Nestlé.

Table 3 Swot Analysis on Nestlé

Source: The Business Strategy Hub Website

2.8   Summary And Conclusion:

Nestlé Bangladesh is utilizing and developing its strategy and resources perfectly. Using research and development and proper marketing tools, they gain a strategic edge, effectively assisting them in meeting their business and corporate goals. Also, their constant renovation is propelling them to the forefront of the industry, resulting in profit and a more extensive client base for their brand. Apart from the weakness and threats, Nestlé Bangladesh is expanding its business day by day.

2.9   **Recommendation:**

- Introducing new products and services to the business.

- Increasing the number of food and beverage start-ups.

- Improving the online offerings to gain a distinct comparative edge in the CPG.

- Developing the manufacturing and operating processes.

- Taking part in CSR activities and adhering to sustainable policies

- Utilizing genuine raw ingredients to stop environmental and social critics' outrage.

Chapter 3

3.1 Research title:

Change in Managerial decision-making through data analysis—a thorough analysis of Nestle.

3.1.1 Origin of the Report:

The internship report was created by following the guidelines BRAC University provided and based on the journey and experiences at Nestle. The report summarizes the intern's overall experiences, learning, accomplishments, and challenges throughout the internship program. As a sales intern, I need to download massive amounts of sales data from Nestle portal and interpret the data and analyze them daily; or This is based on Nestle's interpretation of sales data and the data in managerial decision-making. Nestle has a portal where all the data are keep stored, and those are confidential data—only selected department employees to get access to the database. I believe I have gained a fundamental understanding of how MNCs (Multinational Corporations) use data to make decisions, and I hope to share my findings in this report.

The Objective of the study:

Nestlé is the largest food and beverage company in the world. Nestle has a 150-year presence in 191 countries. Nestle Bangladesh began commercial operations in 1994 with the establishment of its first factory in Sreepur. Nestle offers a diverse range of products that are available across Bangladesh. As stated in the report's objective, the study's primary goal is to determine how data can assist managers in making more efficient decisions. The goal is to figure out how data can make decision-making more accessible than ever before.

Broad Objective:

To determine and analyze the changes in decision-making caused by the data analysis by the management of nestle.

Specific Objectives:

- To understand the viewpoint of MNC's toward their customers.
- To discover the real-life situation that goes through the mind of a business manager when they are preparing a business plan.
- To get better ideas about the working process and versatile culture of MNC's.
- To develop geeks into future business leaders with exceptional versatility.
- How MNC's generate new business ideas.

Significance of the Study: The importance of the study is to take into account the changed viewpoints of managers while making managerial decisions through data analysis. As Nestle Bangladesh is now more into making decisions after analyzing the sales and customer data, this study will indicate the multinational company's decision-making process changes. Furthermore, this study will help other organizations to practice MIS data analysis before making any managerial decisions. On top of that, this study will also show how effective and proven it to take decisions after a thorough analysis based on the recent data from sellers, suppliers, and consumers. Hence, this report will also stand out from the regular market research paper because most of the data used in the study are very confidential. Very few people have access to it, which will also indicate the uniqueness of the study.

3.2 Research Methodology:

Sampling:

Sixty-four employees from Nestlé Bangladesh working in various positions were chosen to review the research topic. Participants are selected using a variety of sampling methods, including both probability and non-probability approaches.

3.2.1 Hypothesis Testing:

H1: There is a massive change in managerial decision-making through data analysis.

H2: There is a minor change in managerial decision-making through data analysis.

3.2.2 Data Collection:

First, one detailed questionnaire was created to collect data on the impacts of data nowadays in changes in managerial decision-making.

The questionnaire includes information about participants' age, gender, interest, daily routine, the standard of work, workplace environment, decision-making procedures, challenges in the workplace, and various information.

Data Analysis:

3.3.1 Data Collection:

A group of 64 Managers/Senior executives/Executives from Nestle Bangladesh were selected for this analysis. The method of selection was random. The samples mainly consist database from my peer connection. Primary data is the majority of data collected. The Google Form was used to carry out the survey using the academic study data with proper consent and permission.

3.3.2 Quantitative data:

Quantitative data have been supplemented mathematically. The detailed figures and details provide the information. The numerical data figures that are recorded in conventional charts and graphs are convenient to understand. The numbers display essential data such as degrees of interaction in measuring the different dependent variables and population statistics. It can be inferred with quantitative data.

We can use quantitative and qualitative data in this analysis, although we have collected more quantitative data through the survey.

3.3.3 Data Analysis:

Manager's Experience findings and analysis:

This analysis was conducted to determine and analyze the changes in decision-making caused by the data analysis by the top management of nestle. To have a better and effective result, I have selected 64 Managers/Senior executives/Executives from Nestle Bangladesh suggested by the supervisor of my department. From each department of Nestlé, more than ten officers involved with management decision-making were invited, and they collaborated by filling up the survey form. Here, the main objective is to understand the rate of change in decision-making caused by the data analysis by the managers.
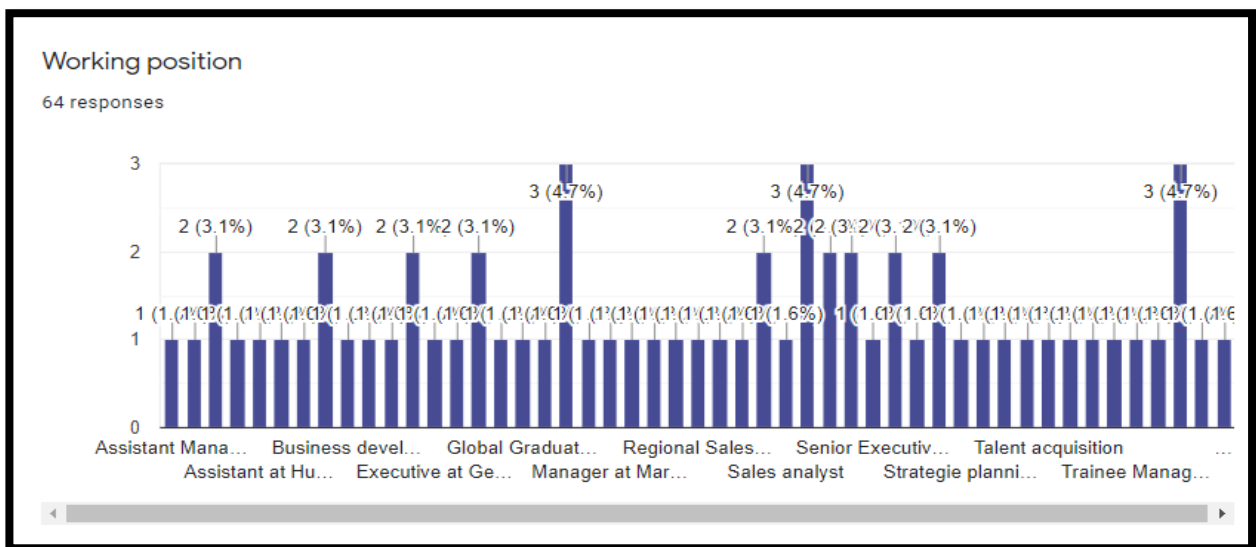

Figure 6 Respondent Working Position

Within the survey, participants are in a managerial position; I have conducted the study from five departments: general management, Human resource, Marketing, Supply Chain & Research, and development.

To identify their experience with MIS, we asked them if they are familiar with MIS or not.
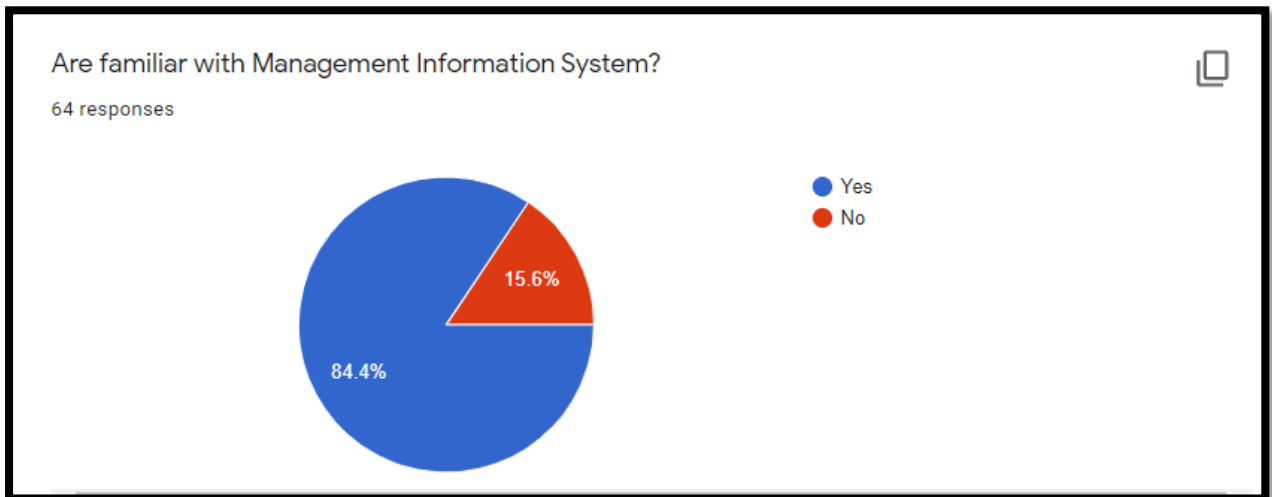

Figure 7 Familiar with MIS

84.4% of them responded affirmatively that they have experience with the management information system. Only 15.6% of participants were not familiar with MIS.

Affirmative answers were linked with another question that, if they use MIS data before taking any managerial decision or not?
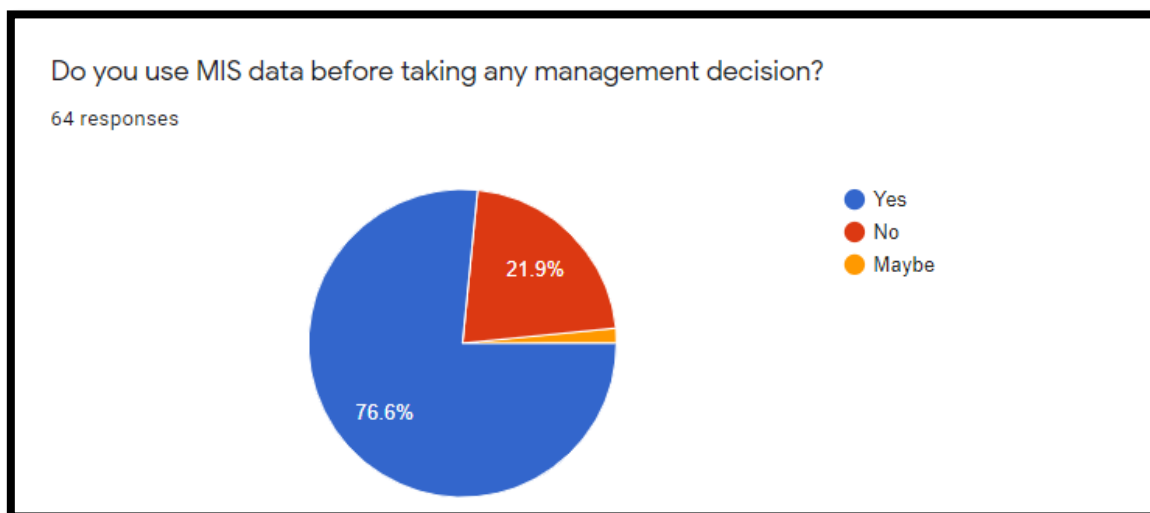

Figure 8 Percentage of using MIS

76.6% of the participants replied that they use MIS data, 21.9% responded that they never used MIS data before making major decisions; instead, they give importance to their personal preference.

Those who have answered affirmatively were asked what their strategy is, and some interesting insights were noted.

Figure 9 Strategy

To figure out their change in decision making, they were asked that if their decisions get changed through MIS data or not.
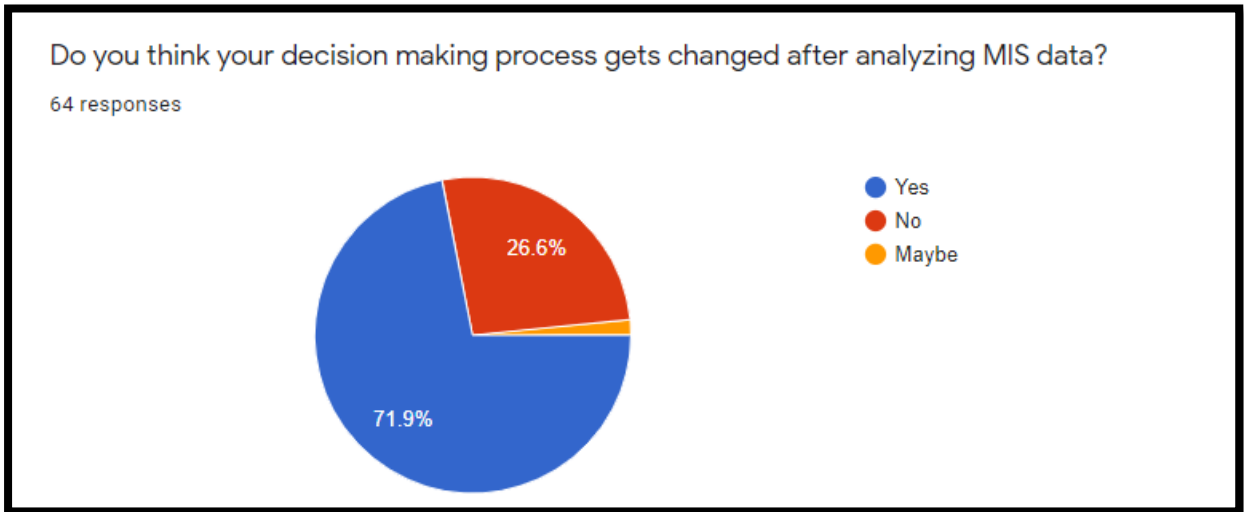
Figure 10 Effect of MIS in decision making

71.9% of the participants responded that their decision gets change due to MIS data, and they take practical choices aligned with the data and their professional experience. Only 26.6% of the participants said their decision remains the same.

So, we can identify that MIS data is an essential factor for their decision-making process, which is also effective.

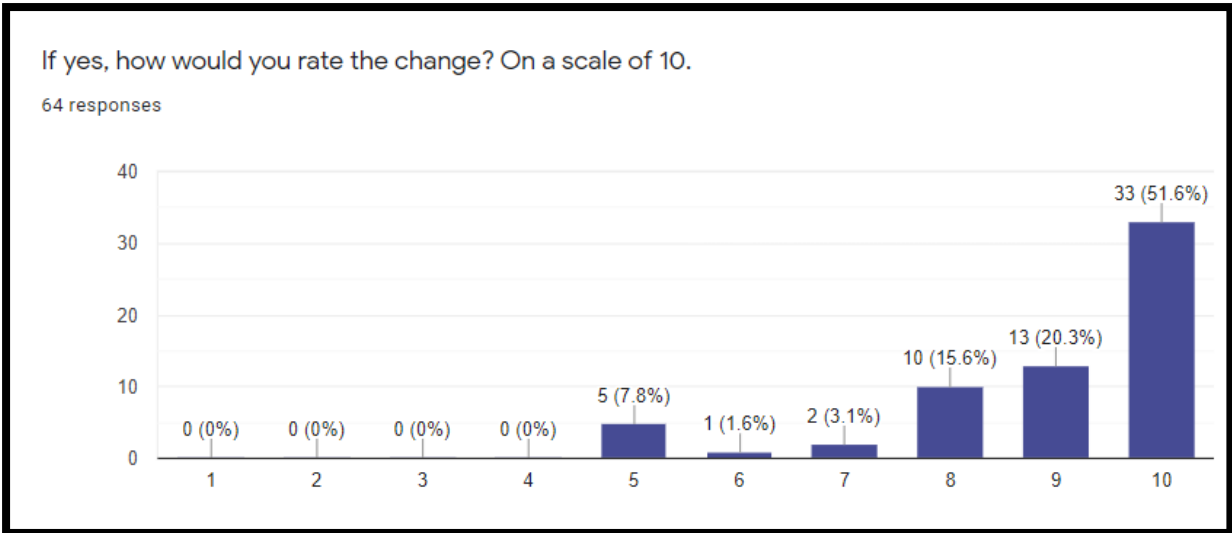So, they were asked to rate their experience with MIS on a scale of 10.

Figure 11 Rate of Change

51.6% of the participants rated te,n, which measures significant change, 20.3% rated above 9, and only 7.8% rated below 6, which means that significant changes occur after they cross-check their decisions with MIS data. That is a clear indication of the domination of data over human-made decisions.

To understand the frequency of MIS usage, they were also asked how often they use MIS data.
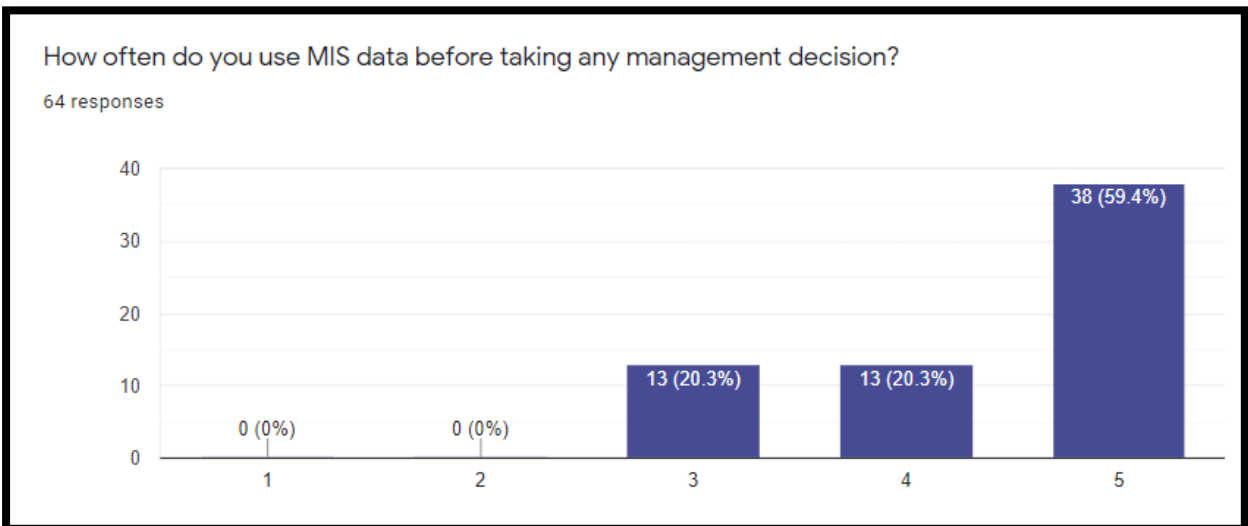

Figure 12 How often MIS data used

The majority of the participants, 59.4%, said they use MIS data almost every day to make managerial decisions. And only 20.3% of the participants said they usually do not rely on MIS data before decisions.

Finally, it was asked that how do they see this practice for their organizations.
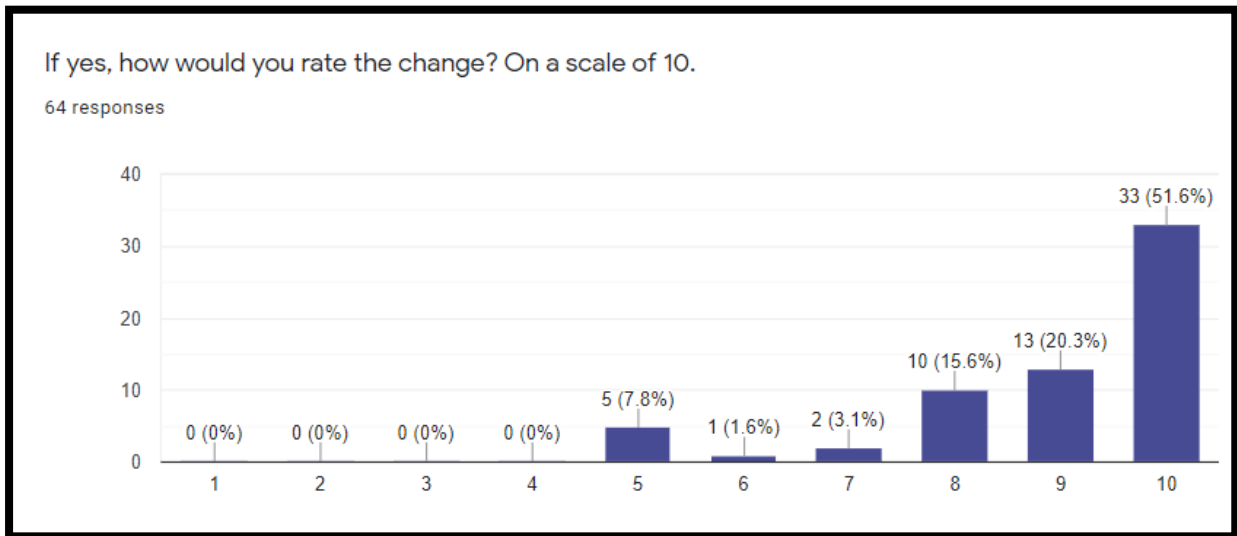

Figure 13 Rate of Practice

The vast majority of participants regarded it as a big step for firms, with 51.6 percent giving it a 10 out of 10 and an additional 20.3% giving it a rating of 9 out of 10, indicating that it is a very efficient practice.

After examining all of the responses and insights, it is evident that 'Data analysis has resulted in a huge change in managerial decision-making,' proving the Hypothesis correct because 76.6 percent of Nestle Bangladesh employees agreed with the statement. If I go a little deeper, I can discover that it varies per department. Because, in a world driven by digital marketing, examining data is the only method for marketing departments to make management decisions. Following up on the post-survey talks, I spoke with my supervisor, who stated that most decisions are made after reviewing data from previous sales data. They also forecast their upcoming sales target based on the data's recommendations. Moreover, sales data are also used to maintain the sales target in each region of Bangladesh. Regional sales managers have to make decisions based on the sales data if they are not meeting their set targets.

On the other hand, MIS data is only used for the initial screening of the recruitment process in the HR department. For that, they use different tools that use machine learning and AI. After the initial screening, they analyze the data and calls for interviews, and the rest of the other

processes are done manually by the top management. But at the end of the research, it is proven that the changes in decision-making are caused by the data analysis by most of the top management of nestle and proves the H1 correct.

3.4 Summary and Conclusion:

This report was written following BRAC University's guidelines and the outcomes from my internship experience at Nestle Bangladesh. This report defines the entire experience, learning process, and success of the internship program at Nestle Bangladesh.

The purpose of this study was to determine and assess the changes in decision-making caused by Nestle's senior management's data analysis. To achieve a better and more effective result, I chose 64 managers/senior executives/executives from Nestle Bangladesh whom my department's supervisor recommended. More than Ten officers from each Nestle department involved in management decision-making were invited, and they contributed by completing the survey form. The primary goal here is to determine the rate of change in decision-making as a result of managers' data analysis.

This study should serve as a deterrent to managers who have yet to implement an MIS system because the world is moving forward rapidly, and choices are no longer based on individual experience but data analysis. According to this study, more than 76.6% of managers use MIS data, analyze it, and make managerial decisions based on it. Most of their decisions get changed after analyzing the data. This suggests that data is the next big thing and that by making the best use of it, an organization may operate better, more efficiently, and bring about revolutionary change.

To sum up the findings, others should begin engaging with managerial decisions in the same way that intelligent managers do. For example, there are plenty amount of analytics tools to choose from, such as Power BI, Python, Tableau. This study will show how critical it is to make decisions based on data insights. Furthermore, this research will benefit firms, and it will be an excellent step for managers to be ready for the fourth industrial revolution.

3.5 Recommendations:

- Keep Regular track of data of all departments.
- To make the best use, data mining will be a great help.
- To make decisions faster, managers should adopt an analytics tool.

- Managers should recruit MIS specialists for better output.

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1. **What is your occupation? ***
- Student
- Part-time Job

- Full-time Job
- Businessman

2. What is your working position?

3. Are you familiar with Management Information System?

- Yes
- No

4. Do you use MIS data before taking any management decision?

- Yes
- No
- Maybe

5. If yes, what is your strategy?

6. Do you think your decision-making process gets changed after analyzing data MIS data?

- Yes
- No
- Maybe

7. If yes, how would you rate the change? On a scale of 10

Minor change   Major change

1   2   3   4   5   6   7   8   9   10

8. How often do you use MIS data before taking any management decision?

Rarely   Almost everyday

1   2   3   4   5

9. **How would you rate this practice for organizations?**

   Not effective   Effective

   1   2   3   4   5

10. **Do you have any suggestions for the managers to use MIS data for decision-making?**