Report On

Financial Modeling of RMPM Forecasting and Analysis in Unilever Bangladesh Limited

By

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An internship report submitted to the **BRAC Business School** in partial fulfillment of the
requirements for the degree of
Bachelor of Business Administration

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BRAC University
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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:

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Riyashad Ahmed
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Letter of Transmittal

Riyashad Ahmed

Assistant Professor of Finance, Director of MBA & EMBA Programs,

BRAC Business School

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66 Mohakhali, Dhaka-1212

Subject: Submission of Internship Report

Dear Sir,

This is my pleasure to display my entry level position details regarding 'Financial Modeling of RMPM Forecasting and Analysis in Unilever Bangladesh Limited', which I was appointed by your direction.

I have attempted my best to finish the report with the essential data and recommended proposition in a significant compact and comprehensive manner as possible.

I trust that the report will meet the desires.

Sincerely yours,

Hridita Noori Rafa

Student ID: 19104171

BRAC Business School

BRAC University

Date: May 1st, 2023

Non-Disclosure Agreement

This agreement is made and entered into by and between Unilever Bangladesh Limited and the undersigned student at Brac University named Hridita Noori Rafa for the responsibility to prevent information disclosure of the firm's classified data.

Acknowledgement

Executive Summary

The report has been prepared to demonstrate the learnings of financial modeling of RMPM in Unilever Bangladesh Limited (UBL) for the duration of my internship. Unilever is one of the strongest competitors in the FMCG industry. As a part of their function, dealing with raw and packaging materials is very vital. This report discusses the processes of forecasting these materials and further explains some methods of analyzing them.

For the requirement of my degree completion, I completed my internship at Unilever Bangladesh in the Finance department. Being a part of the Finance excellence team, I was acknowledged with the reporting style of the RMPM of the company. I was also fortunate to experience the working structure of a subsidiary of a multinational company.

In this study, I identified different raw and production materials along with a brief on their supply chain. Later, I also discussed the technological progression of the company and relevant methodologies for forecasting the RMPMs. The study intends to create ease of understanding related to financial modeling from my internship experience.

Keywords: Unilever; UBL; RMPM; Forecasting; Analysis; Financial Modeling

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List of Acronyms

UBL   Unilever Bangladesh Limited

RMPM   Raw and Packaging Materials

MNC   Multinational Company

FMCG   Fast Moving Consumer Goods

UCL   Unilever Consumer Care Limited

SDGs   Sustainable Development Goals

Chapter 1

Overview of Internship

1.1 Student Information:

I am Hridita Noori Rafa, a final year student in the Bachelor of Business Administration (BBA) program under BRAC Business School (BBS) at BRAC University. I started my undergraduate journey in the Spring of 2019 and hold a student ID of 19104171. I will graduate this Spring 2023 with a double major in Finance, Banking and Insurance, and Computer Information Management (CIM).

1.2 Internship Information

1.2.1 Period, Company Name, Department/Division, Address

I got the opportunity to complete my academic internship at Unilever Bangladesh Limited, a multinational company that has its head office at Shanta Forum (Level 10- Level 14), 187-188/B, Bir Uttam Mir Shawkat Sarak, Dhaka-1208. I have completed my internship being an onsite intern assigned to the Finance Department of the company. I was appointed to work with the Financial Planning & Analysis team. My internship commenced on the 23rd of February and is expected to end on the 24th of May completing my 3 months tenure as per the internship offer.

1.2.2 Internship Company Supervisor's Information: Name and Position

I was supervised by Mr. Asim Mahmud, the Manager of the Financial Planning & Analysis of Unilever Bangladesh Ltd. He guided me through the whole period and tasks during my internship for delivering the best potential.

1.2.3 Job Scope – Job Description/Duties/Responsibilities

My work hour is roughly 35 hours a week and also, and I got the liberty of hybrid working to support the vision of an employee-friendly environment at Unilever. I was appointed to the team of my line manager where the tasks were centered on the activities of financial planning and analysis. As per the contract of my internship, I was also bound to do some ad hoc activities for the organization when it was necessary.

Working within an MNC, there were some mandatory codes of conduct along with privacy guidelines to follow. I accomplished all the regulations of the company during my internship period.

1.3 Internship Outcomes:

1.3.1 Student's contribution to the company

I participated in a varied range of activities within my department. My main task included involvement in the process of understanding the profit and loss (PNL) statement of the company alongside with researching different economic situations. Besides, I took part in the forecasting calculation of Raw and Production Materials (RMPM) of Unilever Bangladesh which was one of the core tasks of my departmental team. Moreover, I contributed to the arrangement of the annual event FinCon conference of the Finance department through my design skills. My contribution to FinCon focused on my digital designing skills.

1.3.2 Benefits to the student

The most significant benefit I got from my internship at Unilever, is the understanding of a diversified multinational company. Unilever Bangladesh collaborates with its sections in other countries and updates frequently with strategies. I learned how a multinational company deals with financial records and verifications including both local and international experts. In addition, I came across people with proven experience that helped me to enrich my

understanding of finance in a company structure. My overall experience brought me out of my comfort zone and inspired me to deliver the best of me. Aside from all these, I got acquainted with the practices of working in a professional environment and maintaining proper etiquette.

1.3.3 Problems/Difficulties (faced during the internship period)

My major challenge was my introverted nature which worked as a primary restriction initially. Communicating effectively is a vital part while working in an industrial sector. I overcame the challenges of practicing communication through small talk and the whole team assisted me to break out of this restriction.

Another challenge was my access to the office device which is only applicable to permanent employees. I was not able to get access to the official files directly due to the guidelines of privacy. Works were assigned to me after maintaining protocols and this sometimes delayed the process. My manager and other team members tried their utmost level to address this issue and thus I completed my assigned tasks.

1.3.4 Recommendations (to the company on future internships)

I recommend the company make ease access for the interns by providing them controlled partial access to the official files. It would reduce the complexity of delayed work for interns. Besides, it would be a revolutionary step if induction sessions of knowing the company can be made for the interns. This would generate the feeling of more inclusiveness in the company to the intern.

Unilever Bangladesh is determined to serve the country with its products and is developing constantly. If the recommended steps can be incorporated, the internship journey of the student will become smoother and increases the learning scope.

Chapter 2

Organization Part

2.1 Introduction:

Unilever Bangladesh Limited has been serving the people of Bangladesh for more than 50 years. Its objective is to enhance the quality of life of Bangladeshi people, which has earned it a strong reputation in the FMCG industry of Bangladesh. The company is dedicated to sustainable and ethical business practices and has been acknowledged as a sustainability leader by organizations such as the Dow Jones Sustainability Index (Unilever named industry leader in Dow Jones Sustainability Index, 2018) and the United Nations Global Compact (What is UN Global Compact-Our Participants-Company Unilever, 2000). Besides, as a subsidiary of Unilever PLC, it has established a solid reputation for delivering high-quality products that cater to the needs of millions of consumers across Bangladesh.

2.2 Company Overview:

2.2.1 The History of Unilever:

Unilever is a British-Dutch multinational consumer goods company that originated from the merger of two major soap and margarine companies, Lever Brothers and Margarine Unie, in 1929. Lever Brothers was founded in 1885 in the United Kingdom by William Lever, who created the soap industry with the introduction of Sunlight, the world's first packaged, branded laundry soap. Meanwhile, Margarine Unie was founded in 1927 in the Netherlands by a group of margarine manufacturers who joined forces to create a larger, more competitive entity (1900 – 1950 – Joining forces, Unilever comes to life, n.d.).

Beauty and Wellbeing, Personal Care, Home Care, Nutrition, and Ice Cream brands were introduced to Unilever's product line during that time, and consequently they developed in foreign markets such as Asia, Africa, and Europe.

Unilever also played a crucial role in producing essential supplies during World War II. The company continued to grow and diversify, introducing new products and expanding its presence in emerging markets. In the 1980s, Unilever faced increased competition and pressure to divest non-core businesses, leading to the sale of several divisions.

In recent years, Unilever has focused on sustainability and responsible business practices, and divested its food and beverage businesses to concentrate on core personal and home care brands. Today, Unilever is one of the largest consumer goods companies in the world, operating in over 190 countries and offering well-known brands such as Dove, Lipton, Axe, and Knorr.

2.2.2 The History of Unilever Bangladesh Limited:

The emergence of Unilever Bangladesh Limited (UBL) can be traced back to the early 20th century when Lever Brothers established a factory in East Pakistan. Despite the challenges of war and economic upheaval, Lever Brothers remained committed to the region and established a new factory in Chittagong in 1973, which was the largest and most modern soap factory in South Asia at the time.

In 2004, Lever Brothers Bangladesh Limited changed its name to Unilever Bangladesh Limited, reflecting the global rebranding of the parent company. Then again, the famous nutrition brand GlaxoSmithKline Bangladesh Limited sold 82% of its share to Unilever Bangladesh in 2020 (GlaxoSmithKline-Locations-Bangladesh, n.d.). Today, UBL is one of the largest FMCG companies in Bangladesh, with a diverse portfolio of products, including personal care, home care, and food. The emergence of Unilever Bangladesh Limited is a

depiction of the company's resilience, commitment, and contribution to the country's development.

2.2.3 Mission and Vision:

The main organizational purpose of Unilever is to make sustainable living commonplace (Nutrition for the Nation, Annual Report 2021, 2021). The purpose indicates the business nature of Unilever in delivering quality goods. In the sector of FMCG, they cover almost all goods that are needed for daily requirements. The purpose combines Unilever's commitment towards their company, brands and people.

Figure 1: Purpose of UBL

Unilever as a company is dedicated to delivering superior long-term value through maintaining its portfolio in the FMCG market. They are not only making goods affordable but also making the organization digitized which is evident from their culture. The extent of Unilever in 190 countries over the world represents their broad channel for serving people everywhere.

However, the objective is not limited to extending the business all over the world, they also maintain transparency and serve people with trust.

The purpose of brands in Unilever is surrounded by objectives contributing to well-being, health, and fair distribution. Almost all brands of Unilever serve to create confidence in the mind of consumers with a message of well-being. The health perspective is not only limited to people but also to the overall improvement of the planet which is reflected through the sustainable practices in the brands. These brands also promote factors like human rights, equality, and fair distribution in their business structure.

Lastly, the people vertical in Unilever's purpose has kept them thriving for excellence. The company believes in creating the capability for people for carrying on their thirst for growth and well-being. People as in the employees are a very vital part of Unilever and they tirelessly create scopes for simplifying work life along with growth. Adaptation and innovation with leadership is a major part of the company's culture which they have incorporated in the purpose. From the essence of these purposes, Unilever aims to embed sustainability in every aspect of their business by shaping customer behavior change.

2.2.4 The Logo:

The Unilever logo (Unilever- Our Company- The Logo, n.d.) features a variety of icons, each representing a different aspect of the company's values and mission. From the sun representing the company's commitment to renewable energy and reducing greenhouse gas emissions, to the dove symbolizing freedom and self-esteem, each icon adds depth and meaning to the logo. The plant icon represents Unilever's commitment to reducing its environmental impact, while the swirl and spoon icons represent the company's dedication to creating great-tasting and nutritious food products. The palm tree signifies Unilever's respect for the natural world and the heart icon represents the company's focus on promoting health and wellbeing. Each icon

plays a role in glorifying Unilever's commitment to sustainability, innovation, and making a positive difference in the world.

Figure 2: Logo

2.2.5 Unilever Brands and products offerings:

With 400 plus brands, Unilever serving the 3.4 billion people every day across the globe (Unilever-Hompage, n.d.). The 400 brands are categorized into 4 parts as follows:

Categories		Brands
Beauty and Personal Care	Skin Care	Pond's
		Glow & Lovely
		Vaseline
	Skin Cleansing	Lux
		Lifebuoy
	Oral Care	Pepsodent
		Closeup
	Master Brands	Lever Ayush
		Dove
	Hair Care	Sunsilk
		TRESemme
		Clinic Plus
		Clear
Home Care	Fabric Solutions	Surf Excel
		Rin

		Wheel
		Comfort
	Home and Hygiene	Vim
		Domex
	Life Essentials	Unilever PureIt
Food and Nutrition	Food and Refreshment	Knorr
		Horlicks
		Lipton
		Brooke Bond Red Label
		Brooke Bond Taaza

Table 1: Products under the categories of Unilever

Figure 3:Brands of Unilever

Within these categories, Unilever also have a number of other brands of their products. The diversity of collection attracts and holds the trust of their huge customer base.

2.3 Management Practices:

2.3.1 Leadership Style:

Unilever Bangladesh Ltd. is headed by a Managing Director and under him are different business categorical brands and functions responsible for managing the daily activities. The board of leadership contains a total of 8 Directors who are mainly non-executive. Corporate governance consists of the Executive Panel where the functional departments operate with the leadership of the Chief Executive Officer. Everyone is accountable for their actions in the

working structure of Unilever. Transparency and integrity are maintained in the company as per the policies (Nutrition for the Nation, Annual Report 2021, 2021).

Almost for all functions, the structure of leadership maintains a similar pattern. In the case of Finance, each category has a partner Finance representative. Again, the company's overall Finance is controlled through a central Finance department. Within the department, 4 teams overlook activities focused on the growth of the company. I am a part of the Finance Excellence team which is assigned to overall finance forecasting and analyzing profit & loss along with actual data for achieving the goals. Thus, similarly, all other teams through the subsections ensure organized management focusing on specific goals and objectives of the company.

2.3.2 Human Resource Planning Overview:

The compensation of different roles in Unilever Bangladesh Limited is confidential and the information is not open for the interns. Normally, the recruitment process is held for open positions through social networks and job sites. The selection process varies depending on the role offered. Both internal and external recruitments are observed in the company. Apart from conventional recruitment, Unilever also arranges signature programs namely, Unilever Leadership Internship Program (ULIP) and Unilever Future Leadership Program (UFLP). Through ULIP, progressive graduating students are given an opportunity for internship whereas, through UFLP, management trainees are being recruited.

2.4 Marketing Practices:

2.4.1 Marketing and Positioning Strategy:

In UBL, the main strategy of marketing is B2B (Business to Business). The strategy here is not to target a single consumer but to a large wholesaler. UBL are the manufacturers and their wholesalers are the distributors. The supply chain extends from distributors to the retailer, and ultimately it reaches the consumer. Different campaigns and activities are arranged for

advertising the products in Unilever. Not only this, but also, they arrange social events which also contributes to their marketing strategy.

For the initial step of marketing, the main target market for UBL is the distributor companies. Several distributors are operating in Bangladesh who is engaged in collecting goods from large businesses and delivering them afterward. Distributors tend to choose the brands which are highly selling among consumers. So, UBL targets these distributors and makes the best use of their marketing strategy to attract them. Strategically, Unilever stands in a position of advantage with its high buying power with a high stream of suppliers. In turn, it also gives them the advantage of increased selling power towards the distributors.

2.4.2 Product Development for the Competitive Marketing:

Being an FMCG company, Unilever has to keep its inventory optimum according to demand and constantly has to innovate for newer product development. The product development in Unilever is generated for the market demand and changing societal needs. Brands study their market and the R&D team then work on improvising that in the brand. An example can be given from the brand Sunsilk of Unilever. People have different hair conditions and some also adopt social norms of hair care. A large number of women in the world wear hijabs and their hair stays covered. Sunsilk identified the issue and introduced Hijab Refresh Shampoo which keeps covered hair refreshed. This is just one example; multiple practices of product development are being carried on at Unilever.

Besides, developing products through R&D, Unilever also acquires different companies for increasing their coverage of products to serve the market need. The acquisition of health care company GlaxoSmithKline Bangladesh Limited by UBL is a great example of this strategy.

2.4.3 Branding and Promotional Strategy:

In the market of FMCG in Bangladesh, UBL is at the forefront with branding and promotional strategies. With their diversity in products, they capture the needs of all kinds of consumers and effectively advertise them to boost sales. For instance, their branding with beauty soap, Dove, and Lux with variable strategy is very commendable. In the advertisement of Dove, they always use normal people as models while in the case of Lux, they use celebrities as models. Dove, symbolizes the beauty soap of mass people and Lux showcases the epitome of beauty standards. Unilever is maintaining a separate branding strategy specific to each product and it is helping them to stand out covering all the segments. Again, on different occasions and national events, UBL sets up campaigns advertising their products that fit perfectly with the occasion.

Apart from the section-wise branding activities, UBL also arranges promotional activities to hold onto the market position. Through the BizLearners program, they create opportunities for young minds for collaborating on the projects of Unilever. Again, their student ambassador program, SPARKS engages students in promotional activities of Unilever's products on university campuses. These initiatives help in the exposure of the company to upcoming and existing consumers. Besides, UBL also arranges promotional activities engaging their employees by making them part of different events of well-being.

2.4.4 Critical Marketing Issues and Gaps:

UBL almost keeps no stone untouched in its marketing practices. No major concerns are there for Unilever as they already have built a strong reputation in the market. Though there are always certain risks coming from environmental situations and competitors, with an adept risk management setup UBL mitigates all arising issues. Still one of the gaps that can be worked on are the accessibility and equally prioritizing all promotional activities. Some programs of

promotional activities in Unilever are prioritized more compared to others. If all activities have equal exposure that might create a scope for uplifting the branding.

2.5 Financial Performance

To assess the financial performance of Unilever Consumer Care in Bangladesh, ratio analysis is done from the collected data of the below table,

Ratios	2022	2021
Current Ratio	1.56	1.42
Debt Ratio	0.64	0.69
Gross Profit Margin	48%	46%
Net Profit Margin	18%	13%
Return on total assets (ROA)	16%	11%
Return on Equity (ROE)	43%	36%

Table 2: Ratios of UCL from the annual report (Unilever Consumer Care Limited, 2023)

Current ratio assesses a company's ability to cover its short-term debts within a year using its financial resources. And also, it measures a company's liquidity position. From the table 2, In 2022, UCL's current assets were 1.56 times higher than its current liabilities. The industry average of current ratio is 1.33 times, which means that UCL has been performing progressively compared to its competitors.

Ratios	UCL	Marico	Reckitt	Industry Average
Current Ratio	1.56	1.34	1.10	1.33
Debt Ratio	0.64	1.62	3.07	1.78
Gross Profit Margin	47.50%	54.26%	45.00%	48.92%
Net Profit Margin	18.00%	27.27%	13.26%	19.51%
Return on total assets (ROA)	17.80%	50.43%	19.00%	29.08%
Return on Equity (ROE)	43.40%	132.16%	79.00%	84.85%

Table 3: Industry Average

Debt ratio calculates the amount of assets that a company needs to liquidate in order to settle its outstanding liabilities. If the debt ratio is below 1.0, it indicates that the company's assets

exceed its liabilities. However, if the ratio is above 1.0, it means that the company has a higher level of liabilities than assets. In 2022, UCL's debt ratio is 0.64 times (<1.0) which means that the company had more assets than liabilities whereas in 2021 it was 0.69. This indicates that now they are more effective in managing assets to liabilities. The industry average was 1.78, which means UCL is managing its assets to liabilities more effectively than its competitors.
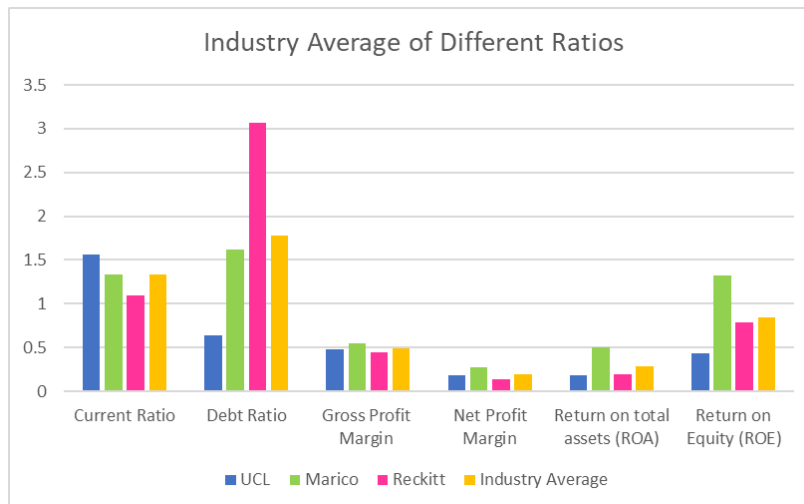
Figure 4: Industry Average of different ratios for some FMCGs

In case of gross profit margin, in 2022 it was 47.50%, which means that for every Tk. 1 of revenue generated; Tk. 0.4750 is retained while Tk. 0.5250 is attributed to the cost of goods sold. The industry average is 48.92%, which means that UCL's rivals are slightly more efficient at making profit after paying off all direct costs associated with running the business.

The net profit margin ratio is a measure that indicates the amount of profit a company generates per dollar of sales. It considers the expenses incurred, such as the cost of sales and other expenses, and deducts them from the revenue to arrive at the net profit. This remaining profit can then be allocated towards other financial obligations like interest, tax, dividends, etc. UCL's net profit margin in 2022 was 18%. It means that the company lost Tk. 0.18 against each Taka it spent. The industry average is 19.51%, which means the rivals are earning more money than spending compared to UCL.

UCL's ROA for 2022 was 17.80%, which means that the company generated a loss of Tk. 17.80 in net income for every BDT 100 invested in assets. The industry average is 29.08%, which means that the competitors are in a better position of managing their balance sheet to generate profits.

UCL's ROE for 2022 was 43.40%, which means that for every BDT 100 of common shareholder equity the company generated a loss of BDT 43.40 of net income. The industry average 84.85% indicates that the competitors are more efficient at profit generation without needing as much capital.

2.6 Operations Management and Information System Practices

The operational activities in Unilever are done through a very protected setup of the Information System. All data are very confidential and employees have to adhere to the overall management to safeguard the data. Only the approved and risk-free legally vetted data have exposure to the public. With changing world, UBL has also adopted the latest digitalization tools which are also in use at the global level of Unilever. Similar software for specific functions is maintained through the inter-connected subsidiaries of Unilever. This helps in uniform access for the company employees. From different lessons learned from the data of one country, the other can utilize it and make action plans accordingly. The operational setup helps in the overall amiable work environment and progress of Unilever.

As for the Finance team, data analyzing tools like SAP (Systems, Applications & Products in Data Processing), Matrix, etc. were exposed to me during the internship period. Through these technological tools data collection, sorting, and verifications are duly done. The analyzed data helps to generate decisions for setting targets for the next quarter of the UBL workstream.

2.7 Industry and Competitive Analysis

2.7.1 Porter's Five Forces Analysis

Unilever faces operational market challenges form different external factors. Through Porter's Five Forces analysis, the forces impacting the business of Unilever are described (Kissinger, 2017):

Competitive rivalry or competition (strong force)

There are a lot of companies in the FMCG industry and this external factor acts as a strong force on Unilever. Nevertheless, the marketing strategies are often aggressive from these industry players which increases the strength of competition. With a demerit of low switching costs, Unilever faces a good amount of obstacles from the competitive environment.

Nestle with their coffee brand Nescafe is in an advantageous position. Bringing variation in switching costs of Nescafe, Nestle has reached all classes of consumers. On the other hand, the coffee brand Bru of Unilever is not getting as much reach as the extent of Nescafe. Bru has a premium quality standard and Unilever is not able to switch for variations.

Bargaining power of buyers or customers (strong force)

As discussed earlier, the low switching costs enable consumers to move away from Unilever's products to other companies' products. This external factor shows the strong force of the bargaining power of buyers. Not only that, but also the consumers are now more aware of the product information through open access which plays a deciding factor when choosing a specific product of a firm over Unilever.

Due to consumer rights acts of different states, consumer goods-producing firms have to mention all contents in the packaging of products. Customers can judge and compare between

same category product between two or multiple firms. Thus, the bargaining power of customers is higher in the FMCG industry.

Bargaining power of suppliers (moderate force)

The average supplier size of Unilever is moderate even though they have large foreign suppliers of paper and oil. These moderate supplier groups have limited influence on firms like Unilever. Thus, the moderate level of the overall supply does not bother the firms too much.

As the suppliers' bargaining power is moderate for Unilever, they can maintain the quality of their products.

Threat of substitutes or substitution (weak force)

The low switching costs enable consumers to easily use substitutes for Unilever's products. This external factor imposes a strong force on the company and the consumer goods industry environment. However, the overall impact of substitution is weakened because of the low availability of substitutes.

Threat of new entrants or new entry (weak force)

Though the low switching cost might indicate the strong force of new entrants over Unilever, the real environment is very much different. It might come to the sight that new entrants can produce variations of Unilever, and compete to bring down the sales of the firm. In a true sense, building strong brands like Unilever is not a mere task. This external factor weakens the strength of the threat of new entrants against the firm.

Unilever has the advantage of a high-scale economy that supports competitive pricing and operational efficiency. This is very hard for any new firm to replicate in an instant. As a consequence, Unilever remains in a strong position in relation to new entrants.

2.7.2 SWOT Analysis

SWOT analysis of any company helps greatly to highlight their stance in the industry or the market they work at. A SWOT Analysis of Unilever in a broader perspective is presented in through the below discussion:

Strength (S)

Unilever has shown its strong position as a brand among consumers with its presence in over 200 countries all around the world. They constantly engage in product development and efficiently maintain quality. They religiously work with the UNDP guidelines and try to attain the Sustainable Development Goals (SDGs). When compared with their closest competitor, Proctor and Gamble, Unilever maintains flexible fixation of prices. In terms of financial records, they have a good reserve of earning enough profit (Jones, 2020).

Again, Unilever also adapts to local markets while setting up its business in different countries. They combine a mix of cultural values in their products.

Weakness (W)

In regions like Africa and Asia, there is a risk of other FMCG companies who often reciprocate the product substitutes offered by Unilever. Some consumers shift to these products due to comparatively lower prices. Again, in the same market, the giants like P&G and Nestle are also competing with Unilever.

Opportunity (O)

Unilever has the advantage of the ongoing globalization which is creating new customer bases all around the world who are getting inclined for products of the West. In addition, their existence and stronghold in progressing countries like India and China keep them a step ahead

in global competition. Not only this but their acquisition and adoption of healthy and nutritious products are also providing them an upper hand.

Threat (T)

Like the rest of the world, Unilever has also consumed the risks from the pandemic of COVID-19. The market got shrunk at a moment and risks like this can again arise. Since the operation of Unilever is with local products of segmented and emerging markets and alternatives to its brands proliferate especially in the emerging markets, they always carry the threats of initial losses with the innovation failure probability. Lastly, the newer threats are from the entrepreneurial competition of Asian companies which are also growing globally.

2.8 Summary and Conclusions

The position of Unilever in the FMCG industry holds a rich history and still has an increasing trend in business. The management practices of the firm clearly dictate how Unilever's leadership style of directorial body and operational body is smoothly meeting the people's demands. Different programs and competition in the human resource planning process show the determination of Unilever in uplifting young talents. The marketing practices, including its strategy, target customers, marketing channels, and promotion strategies prove that the firm does not take anything for granted. Even after being in a good market position, they are constantly adapting with time. The financial performance in the tenure of 2020-2021 gives an overall idea about the profitable business units.

Furthermore, Unilever's sophisticated operations management and information system with modern technological involvement guarantees the adaptability and innovations of the firm. To give a strong analytic base, the industrial competitiveness of Unilever through Porter's Five Forces analysis determines the stance of the firm in relation to consumers, suppliers, and new entrants. The company's competitive advantage is clearly stated through SWOT analysis and

also the possible actions including remediation of threats are a hopeful direction for the present and future market.

2.9 Recommendations

Being in the market for more than a century shows the strong side of the management of Unilever. No areas of improvement exist for management practices. Rather, marketing should be at focus as it has always been with Unilever. They could also incorporate simulations of future market environments generated through Machine Learning (ML) and Artificial Intelligence (AI). Engaging advisors and experts in the AI field can help in the research of Unilever to discover time-necessary products.

From the analysis, a vital risk of low switching cost is observed, and it should be duly addressed. A risk management rubric can be generated from historical data of the market which can give an idea to the firm, how much acceptable risk it can get for compromising switching cost. In a word, increasing the use of modern technology and replacing it with the latest one can add up to the advantage of Unilever. One of the recent and ongoing projects in UBL of transferring to new software from MATRIX in financial analysis is a good sign of adopting new technologies.

Chapter 3

Project Part

Financial Modeling of RMPM Forecasting and Analysis in UBL

3.1 Introduction

3.1.1 Background

For any company, generating a financial model is a crucial part as it can initiate logical decision-making for measuring the overall profit or loss. Any consumer goods producing company, they have to deal with Raw and Packaging Materials (RMPM). In this industry, it mostly goes by its acronym RMPM. Large companies including MNCs have to procure these RMPMs either locally or globally as per necessity. Procuring the correct materials is a vital step as the company's profitability and overall success depend on this action. A little disruption in the supply chain of raw materials for any manufacturing industry has a significant impact. In a blog by Tata Business Hub Limited (H, 2023), the distinction between procurement and purchasing is explained. Purchasing defines the consumption of raw materials for daily operations and on the other hand procurement refers to the 3 Ps, People, Process, and Paperwork which aims to optimize purchase and save costs.

The performance of the company can be assessed, future measures can be taken and weaknesses can be identified with a successful forecasting strategy. forecasting financial performance is the opening step in any financial planning process as it can assist to predict net profit and return on investment (ROI). For instance, in a comparison between Unilever and Nestle (Khatun, Haque, & Rahman, 2021), the regression model from existing data concluded many decisions. Remarkable proportional change for sales revenue and investment in the case of Unilever was obtained which was not achievable in the case of Nestle. The study suggested

changes in appropriate forecasting methods according to the structure where Nestle could improve. With sufficient available data and accurate modeling, possible improvements can be assessed.

3.1.2 Literature Review

Zheng, Regenstein et al. (Zheng, Regenstein, Teng, & Li, 2020) shows the importance of accurately procuring raw and packaging materials through demonstrating a traditional Chinese food Tofu. As Tofu is a processed food, they focused on different food contents and health safety concerns of the raw products. Regarding packaging, they put pressure on technologies like atmospheric, irradiation and plasma activation. The decision making for modifications in procuring raw and packaging materials depends on the sales and forecast of the previous market year. The analysis at Indonesian FMCG company PT. XYZ describes the importance of packaging raw materials for inventory management in minimizing the overall cost of packaging raw materials with assistance of secondary data (Larasati, Madelan, & Badawi Saluy, 2021). From secondary data of the company, with the use of forecasting method-winter method and moving average analysis was done of the procured raw materials. Calculating the Root Mean Square Error (RMSE), they reached for the final result of forecasting method-Economic Order Quantity (EOQ) which saves the total inventory cost. There are also different other methods which are proven effective in forecasting efficiency of raw and packaging materials. Design Science Research (DSR) method (Ryynänen, 2022) can manage the risks associated with packaging through analyzing forecasting model of packaging cost (FMPC). Another sales forecasting model for consumer-packaged goods- CHAN4CAST (Divakar, Ratchford, & Shankar, 2005) takes a number of parameters including past sales, trend, competitor prices and a lot other to suggest new product, corrections, and adjustments at wholesale level.

Although there is existence of a number of forecasting procedures, but often companies fail and incur loss for incorporating the wrong method. Studying some forecasting models at

different FMCGs, Adebanjo & Mann (Adebanjo & Mann, 2000) came with the following three issues existing in the market-

- Wrong comparisons of forecast performance between businesses result from multiple methods of internal and external forecast error.

- A lot of FMCG businesses only have one forecast figure for each (Stock Keeping Unit) SKU instead of having a range fails to reach level of confidence.

- In some companies there are intervention from sales and marketing management in derivation process of the forecast causing to have bias.

3.1.3 Objective(s)

Unilever Bangladesh Limited (UBL) largely depends on the results and analysis of RMPM Forecasting for maintaining inventory and storage. The objective of the report is

- To understand the importance of RMPM in the FMCG sector.

- To identify how the financial modeling is developed for the company.

- To evaluate how the RMPM forecasting is impacting the overall financial profit and loss.

3.1.4 Significance

Financial Modeling for any organization determines its position with respect to the economic condition. It can be done from global, regional, and also be in local perspectives. While modeling, different parameters are taken into consideration based on the company's stakeholders and surrounding environment. UBL, being a subsidiary of the mother company Unilever, does the financial modeling from a local perspective. The stakeholders of UBL include the suppliers, consumers, distributors, and also local market regulators in Bangladesh.

Moreover, the forecasting methods used for manufacturing-based industries give conclusions to a number of decisions. Starting from inventory, cost, and budget to the overall progress of the company can be brought into comparison with the implication of forecasting. Forecasting is done to know the future condition of the scenario based on available present data. When the actual forecasted time arises, the actual result can be compared with the forecasted outcome. From this condition, future methodologies in forecasting can also be developed which will give better results in performance. Again, forecasting is also a great way of achieving any target as it gets developed with time.

The merit of financial modeling with forecasting is showcased with an example. For instance, Unilever is a FMCG company and they always have to keep products ready within the validated date limit. To have fresh products and reduce the loss, they forecast how many products should stay in the inventory for the designated amount of time. This action determines the work ethic alongside incurring low loss by managing perfect inventory.

3.2 Methodology

The study is sectioned into several parts to achieve the objectives. With available data and experiences during internship, the process of RMPM Financial modeling and analysis has been brought into verse from the roots. The following table shows the consecutive steps of the study,

Sl. No.	Steps
1.	Identification of RMPM and Selection Process
2.	Tools used in Financial Modeling for Forecasting
3.	Demonstration of Weighted Average Formula
4.	Impacts on Profit and Loss from the Analysis

Table 4: Methodology of the study

Initially, some of raw materials and packaging materials used in producing of Unilever are identified. The identification not only limits at quality selection, rather explanation of choosing optimum standard of suppliers in the process is also done. The latter part of the study discusses about the tools used in collection of these data and displaying them through forecasting.

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Besides, a short overview is also given about the factors which are fed into the system of calculation. Further, comparison-based analysis with real time outcome and forecasted outcome in case of UBL is also discussed.

Next steps include the explanation of theoretical formula of weighted average for forecasting, one of the widely used practices at UBL. With some dummy data, the practical use of the formula is demonstrated with proper explanations. Finally, the impacts of the processes are analyzed to identify their role in profit and loss scenario of UBL.

To analyze the steps of the methodology, a survey was carried on between some finance graduates and colleagues at UBL. 11 participants responded to the survey. With this sample size, the analysis was accomplished. The questionnaires were based on the effectiveness and peoples' awareness about the processes mentioned in the study. Subsequently, the findings helped to get a conception to further strengthen the study.

3.3 Findings and Analysis

3.3.1 Findings from the Survey

The survey was designed with a total of five questions and all of them were close-ended for the purpose of study. The first question focused on the importance of supplier selection of RMPM in financial forecasting for any FMCG. None of the participants disagreed about the importance but only a 18.2% people were neutral with the statement. In case of familiarity with forecasting tools, 81.8% people are well-aware. Among them, 45.5% people know about at max two forecasting methods, 36.4% people know about three or more forecasting methods and the rest people are limited with one method.
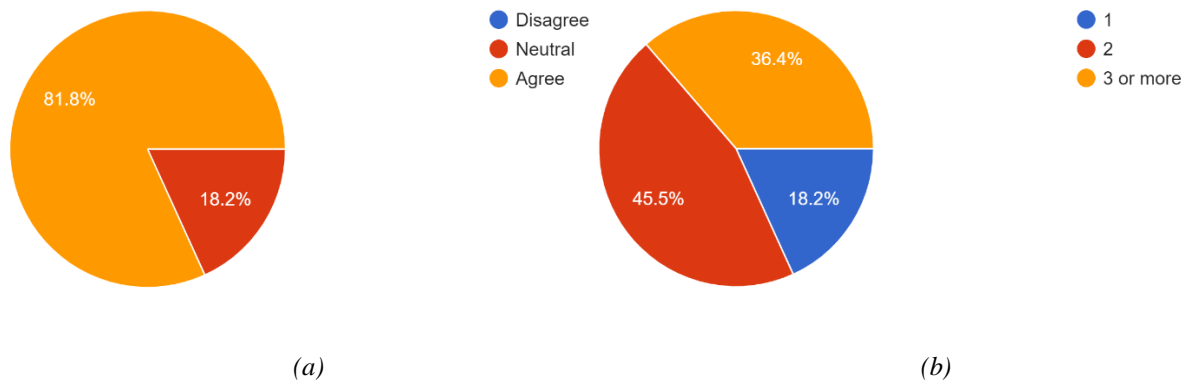
Figure 5: (a) Importance of Supplier Selection of RMPM for forecasting, (b) Peoples's familiarity with number of forecasting methods

The forecasting method used in this study is weighted average and the conducted survey judged its reliability where 27.3% people very reliable with the method. The highest number of people chose the reliable option which accounts the mode to 5. The final question focused on the impacts of profit and loss from forecasting. People were asked about a probable percentage of avoiding loss and the highest 45.5% people agreed of avoiding 70% loss. An average of 4 people agreed of avoiding greater percentage of loss than 70% mark.

3.3.2 Overview of Supplier Selection and RMPM

UBL strictly follows the guidelines and strategic procedures which are practiced by the mother company. Supplier selection is done based on a number of criteria focusing on the global guidelines. One of the major traits, they look in for the supplier is the sustainability component. Since the world is rapidly changing and issues like global warming prevails, the goal of UBL remains to choose suppliers who maintain sustainability ideologies in any process of preparing the raw materials. In addition, UBL also has to follow the ethical issues and impact that the supplier is abiding by to generate the best outcome. As discussed earlier about the FMCG nature of UBL, the size of the supplier is also an important matter of concern. To deliver uninterrupted production, they require a moderately enough size of supplier. UBL normally has four types of inventories. The types and relevant goods of the inventories are as follows-

- ROH: For storing Raw materials

- VERP: For storing Packaging materials

- HALB: For storing Semi Finished materials

- FERT: For storing Finished Goods

Packaging Materials	Raw Materials
FBC VIM LIQUID PRO 24X250ML	Sorbitol
T/CAP Pepsodent Toothpaste 100G	Labsa
T/CTN Close up fresh venus 50G	Distilled Water
Stiffener 176X95mm LUX 150G	Soda Ash Light
Wrapper LUX Bar Soft Touch 100G	

Table 5: Examples of some raw and packaging materials used at UBL

In Table 5, some examples of packaging and raw materials are mentioned. In packaging materials some notations are used for instance, FBC (Flexible Bulk Container) denotes the purpose of shipping while CTN (Cargo Tracking Notes) defines the content verification of all cargo and then tracking them between ports. Since most packaging materials are being imported and thus the mentioned terms are applicable. Again, CAP (controlled air packaging) is a method that replaces the gaseous environment inside and outside the package to increase the life of the product.

Figure 6: Packaging materials of Bar Soaps

Each brand requires a separate set of requirements for raw and packaging materials. For instance, if we consider the brand Sunsilk, the raw materials consist of Distilled Water, Sodium

Laureth Sulfate, Cocamidopropyl Betaine, Dimethiconol, and a lot of other ingredients varying with the type of Shampoo. The packaging materials for the same product include Laminate, Carton, Bottle cap, Bottle Pump, and the Bottle itself. The primary step of product preparation is done keeping the above parameters in mind. The correct procedural supply chain ensures consistency for the calculations and analysis of the operational stage.

3.3.3 Financial Modeling Tools for Forecasting

There are a lot of software in use for different types of functions in UBL. As a part of the Finance Team, I got acknowledged with Matrix. This is a locally built software by Al Hiyal exclusively for the use of Unilever. The software is mainly used for P&L (Profit and Loss) forecasting and has all calculations built in that are in implementation at UBL. In P&L forecasting, growth, profitability, and cost structure of the relevant brands are anticipated through financial aspects. But recently UBL is moving to TM1 from May of 2023. This will be used for the same purpose as P&L. TM1 is an IBM analytics software, and this is designed to fit for forecasting process and requirements of Bangladesh. Some of the factors which play a role in the calculation and forecasting are the volume of available data, RM rate of the material, Market rate of the material, the rate in other currency (e.g., USD), shipping mode of the materials, etc.

Another software that is being used at Unilever is Jervis. This platform without interrupting the existing practice of the company, provides access to comprehensive data that is accumulated in real-time and also generates reports. To add on, the reports are customizable. To explain in laments terms, this software calculates the price elasticity of demand to analyze how price changes will impact the volume of data.

3.3.4 Demonstration of Weighted Average Formula

One of the calculations through which UBL does forecasting is weighted average. In this forecasting, weight refers to the emphasis given on the outcome. The deciding factor of keeping inventory in hand based on past performance of a good is the main agenda of Weighted Average Forecasting. This formula works well in case FMCG, as the sales of the goods are continuous.

The following are the required parameters for Weighted Average Forecasting-

- Average of the total usage in the period

- Weighted value (WV) = weight x usage, where usage is how much was stock keeping units (SKUs) should be kept at inventory for use.

- Weighted average forecast = weighted value ÷ total weight

- Calculating error rate

- Choosing Weighted average with lowest error rate

A dummy data is taken to consider month-wise SKUs (Jan, Feb, Mar and Apr) of Surf Excel for forecasting and analyzing. The following table shows the initial SKUs,

Period	Usage (in Thousands)
Jan	50
Feb	43
Mar	52
Apr	55

Table 6:SKUs count monthly

$$The\ Average = \frac{50 + 43 + 52 + 55}{4} = 50$$

Next step is giving weight to the relevant months. That mean, emphasis will be given to different months. Here emphasis is given alternatively with three scenarios.

Firstly,

Period	Usage (in Thousands)	Weight	WV
Jan	50	3	150
Feb	43	8	344
Mar	52	6	312

| Apr | 55 | 0 | 0 |

Table 7: Sample 1 of Weight distribution

Total WV= 806

Total Weight= 17

Weighted average forecast $= \frac{806}{17}$

$= 47.41$

Secondly,

Period	Usage (in Thousands)	Weight	WV
Jan	50	6	300
Feb	43	5	215
Mar	52	3	156
Apr	55	5	275

Table 8: Sample 2 of Weight distribution

Total WV= 946

Total Weight= 19

Weighted average forecast $= \frac{946}{19}$

$= 49.79$

Finally,

Period	Usage (in Thousands)	Weight	WV
Jan	50	7	350
Feb	43	1	43
Mar	52	5	260
Apr	55	6	330

Table 9: Sample 3 of Weight distribution

Total WV= 983

Total Weight= 19

Weighted average forecast $= \frac{983}{19}$

$$= 51.74$$

Next the error calculation of the samples

$$\text{Sample 1 Error} = \left(\frac{50-47.41}{50}\right) \times 100$$

$$= 5.2\%$$

$$\text{Sample 2 Error} = \left(\frac{50-49.79}{50}\right) \times 100$$

$$= 0.4\%$$

$$\text{Sample 3 Error} = \left(\frac{51.74-50}{50}\right) \times 100$$

$$= 3.5\%$$

Since the error rate is the lowest for Sample-2, for forecasting of the next month the usage should be around 49.79. That is, the SKUs for Surf Excel for the next month will be 49.79 thousand.

3.3.5 Impacts on Profit and Loss from the analysis

The forecasting analysis which UBL obtains is showcased through the use of Matrix and soon it will be replaced with TM1. The decisions which impact the profit and loss from the analysis are-

1) As the cost of RMPM rises, the profit becomes lower and vice-versa.

2) The Procurement of raw materials and covering the stock limit is decided. It further suggests how much inventory should be in hand and how much should be used up.

3) Two types of savings, i) cash saving and ii) non-cash saving can be assumed from the negotiation power. For instance, if buying power for a material is more, the negotiation becomes easier.

4) Preparations for the state of inflation can be done which will reduce the loss.

Without forecasting if any organization plans budget, then it might lead to loss as the demand for raw and packaging material will stay unknown. It may result in either surplus or scarcity of the required materials. Thus, UBL through forecasting analysis manages to ensure profit maximization.

3.4 Conclusion

Starting from the initial steps of selection and utilization of market position, UBL obtains the best quality raw and packaging materials. Then, further analysis becomes easier with the use of the latest technologies. The phenomenon of moving from Matrix to TM1 shows the determination of UBL to change with time and adopt newer technologies. To obtain the best forecasting results, UBL makes no compromise.

UBL religiously maintains company guidelines and government guidelines like the BSTI logo, proper expiry dates, and other industry standards for all their products. To summarize, the company overtakes all necessary actions routinely and gets equipped adequately to deliver the best practice of providing consumers with perfectly finished goods.

3.5 Recommendations

The ever-adapting nature of UBL makes them a very strong competitor in the FMCG industry. In case of RMPM forecasting, they utilize the latest financial modeling tools which is a commendable action that puts direct effect on the profit margin. According to my internship experience, UBL stands out us an exciting opportunity if someone is eager to embark on the FMCG sector. For further excellence, UBL may engage in research to determine best way through multiple assessments. This will help to carry on the existing brand name and reputation.

References

1900 – 1950 – Joining forces, Unilever comes to life. (n.d.). Retrieved from Unilever Website: https://www.unilever.com/our-company/our-history-and-archives/1900-1950/

Adebanjo, D., & Mann, R. (2000). Identifying problems in forecasting consumer demand in the fast moving consumer goods sector. *Benchmarking: An International Journal*, 223-230.

Bhandari, I., Colet, E., Parker, J., Pines, Z., Pratap, R., & Ramanujam, K. (1997, March). Advanced Scout: Data Mining and Knowledge Discovery in NBA Data. *Data Mining and Knowledge Discovery*, 121-125.

Brian, S. (2012, January 25). The Problem of Shot Selection in Basketball. *PLoS One*. Retrieved from https://doi.org/10.1371/journal.pone.0030776

Choudhury, R. D., & Bhargava, P. (2007). Use of Artificial Neural Networks for Predicting the Outcome. *International Journal of Sports Science and Engineering, 1*(2), pp. 87-96.

Divakar, S., Ratchford, B. T., & Shankar, V. (2005). Practice Prize Article—CHAN4CAST: A Multichannel, Multiregion Sales Forecasting Model and Decision Support System for Consumer Packaged Goods. *INFORMS*, 334 - 350.

Duckworth, F., & Lewis, T. (1999). *Your Comprehensive Guide to the Duckworth/Lewis Method for Resetting Targets in One-day Cricket.* University of the West of England.

GlaxoSmithKline-Locations-Bangladesh. (n.d.). Retrieved from GlaxoSmithKline: https://www.gsk.com/en-gb/locations/bangladesh/

H, P. (2023, February 13). *Procurement of raw materials: Process, strategies & factors to consider.* Retrieved from TATA Nexrac-Tata Business Hub Limited: https://blog.tatanexarc.com/da/procurement-of-raw-materials/

Jones, G. (2020). *Unilever-A Case Study.* Boston: Harvard Business School.

Khatun, M. A., Haque, S. Z., & Rahman, S. (2021). Forecasting Financial Performance using Regression Techniques: A case study on Comparative Analysis of Nestle and Unilever. *AIUB Journal of Business and Economics*, 133–159.

Kissinger, D. (2017, February 21). *Panmore Institute.* Retrieved from Unilever's Five Forces Analysis (Porter's Model) & Recommendations: https://panmore.com/unilever-five-forces-analysis-porters-model-recommendations

Larasati, M., Madelan, S., & Badawi Saluy, A. (2021). Analysis of Packaging Raw Material Requirements in Inventory Management PT. XYZ. *Dinasti International Journal of Economics, Finance & Accounting*, 260-272. doi:https://doi.org/10.38035/dijefa.v2i3

(2021). *Nutrition for the Nation, Annual Report 2021.* Dhaka, Bangladesh: Unilever Consumer Care Limited.

Ryynänen, M. (2022). *A forecasting model of packaging costs : case plain packaging.* Lappeenranta: Lappeenranta-Lahti University of Technology LUT.

Sankaranarayanan, V. V., Sattar, J., & Lakshmanan, L. S. (2014). Auto-play: A data mining approach to ODI cricket simulation and prediction. *SIAM International Conference on Data Mining*, (p. 1064).

Tulabandhula, T., & Rudin, C. (2014). Tire Changes, Fresh Air, and Yellow Flags: Challenges in Predictive Analytics for Professional Racing. *Big data*. Retrieved from http://doi.org/10.1089/big.2014.

Unilever Consumer Care Limited. (2023). *Preparing Today for a Positive Future, Annual Report 2022*. Dhaka: Unilever Consumer Care Limited.

Unilever named industry leader in Dow Jones Sustainability Index. (2018, September 13). Retrieved from Unilever: https://www.unilever.com/news/press-and-media/press-releases/2018/unilever-named-as-an-industry-leader-in-djsi/

Unilever- Our Company- The Logo. (n.d.). Retrieved from Unilever: https://www.unilever.com/our-company/the-logo/

Unilever-Hompage. (n.d.). Retrieved from Unilever: https://www.unilever.com/

What is UN Global Compact-Our Participants-Company Unilever. (2000, July 26). Retrieved from United Nations Global Compact: https://unglobalcompact.org/what-is-gc/participants/9643-Unilever

Zheng, L., Regenstein, J. M., Teng, F., & Li, Y. (2020). Tofu products: A review of their raw materials, processing conditions, and packaging. *COMPREHENSIVE REVIEWS IN FOOD SCIENCE AND FOOD SAFETY*.

Appendix

Survey Questions:

1. Do you agree, supplier selection for raw and packaging materials (RMPM) is an important factor of financial forecasting for an FMCG company?

2. Are you familiar with any tools of forecasting?

3. How many forecasting methods are you familiar with?

4. How reliable do you think is weighted average for financial forecasting in an FMCG?

5. How much loss do you think can be avoided through financial forecasting?

Survey Google Form Link:

https://forms.gle/t4UFMWgjt3vjbHiX7