Valuation and Financial Modeling of Neomis Salon and Spa

An Internship Report for

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By

Anuj Girish Naik

Roll Number: 2144

Under the Supervision of / Mentor

Prof. Nilesh Borde

Goa Business School
Management Studies

Goa University

Date: 26th April 2022

Examined by:

Seal of the School

COMPLETION CERTIFICATE

This is to certify that the dissertation / internship report **"Valuation and Financial Modeling of Neomis Salon and Spa"** is a bonafide work carried out by **Mr Anuj Naik** under my supervision/mentorship in partial fulfilment of the requirements for the award of the degree of **Master of Business Administration** in the Discipline of Management Studies at the Goa Business School, Goa University.

Prof. Nilesh Borde
Management Studies

Date: 29/04/2023

Goa Business School ★ Goa University ★

School Stamp

Prof. Jyoti Pawar
Dean,
Goa Business School

Date: 29/04/2023
Place: Goa University

DECLARATION BY STUDENT

I hereby declare that the data presented in this Dissertation / Internship report entitled, "Valuation and Financial Modeling of Neomis Salon and Spa" is based on the results of investigations carried out by me in the (Management Studies) at the Goa Business School, Goa University under the Supervision/Mentorship of Prof. Nilesh Borde and the same has not been submitted elsewhere for the award of a degree or diploma by me. Further, I understand that Goa University or its authorities will be not be responsible for the correctness of observations / experimental or other findings given the dissertation.

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Anuj Girish Naik
Roll Number/Seat no: 2144
Management Discipline
Goa Business School

Date: 6/05/2023

Place: Goa University

NEOMIS
ENTERPRISE PVT. LTD.

INTERNSHIP CERTIFICATE

This is to that Mr. Anuj Girish Naik Student of the Goa Business School, Goa University, undergoing Master's in Business Administration has successfully completed Internship between 1St March 2023 to 26th April 2023 at Neomis Enterprises Pvt. Ltd. He actively participated in the activities during the period on internship and learned the skills needed for various activities in Accounts Department.

Place: Panjim

Date: 26-04-2023

Contact Person: Neomi Barneto

Designation: Director

Neomis Enterprise Pvt. Ltd.

ACKNWOLEDGEMENT

I am writing this acknowledgement to express my sincere gratitude to Sir Mario Barnetto for providing me with the opportunity to intern at Neomi's Salon & Spa as a part of my academic curriculum. I would like to extend my heartfelt thanks to the Dean Prof. Jyoti Pawar of our institution for giving me the permission and support to pursue this internship.

I would also like to express my sincere gratitude to my mentor, Prof. Nilesh Borde, for being an incredible guide throughout my internship. Their support and guidance helped me to gain invaluable knowledge and hands-on experience in the field of Finance. I have learned a lot under their supervision, and I will always be grateful for their time and efforts in helping me develop my skills.

I also wish to thank the entire team at Neomi's Salon & Spa for providing me with an excellent learning experience. Working with such a professional team of experts has been a great privilege, and I am grateful for the knowledge and insights they shared with me.

Once again, thank you for giving me this incredible opportunity. I will always cherish the experience I gained during my internship, and I look forward to applying the knowledge and skills I acquired during my internship in my future endeavors.

Contents

Company Profile

Founded in Goa's Miramar in June 1997. The innovative husband and wife combination of Neomi and Mario Barneto created Neomi's Hair & Beauty Salon. One of Goa's first unisex salons, it was. In the Centaur Hotel in Mumbai's Visible Changes Salon, Neomi and Mario began their professional careers. After a brief stay in Dubai, they made the decision to return to their Goa origins and offer top-notch hair and beauty services there.

In the years that followed, Noemi's Hair & Beauty Salon established salons in Calangute (2005), Ponda (2012), and other areas of Goa. A spa and salon at Calangute has just been added to the enterprise to meet consumer demand.

Both Neomi and Mario have consistently improved their skills over time and have received training from the top professionals in the field both domestically and abroad.

They received their training at Vidal Sassoon (London), Toni and Guy (Singapore), Mac (London), Marvie Beck (Mumbai) and L'Oreal Professionnel (Mumbai). Neomi has also been a member of the L'Oreal Creative Hairdressers' Forum.

Company Mission

Neomi’s has maintained its leading position with the constant upgradation of their skills, the mission being, prioritising customer satisfaction and maintaining consistent high standards of quality and service across their chain of salons.

Location

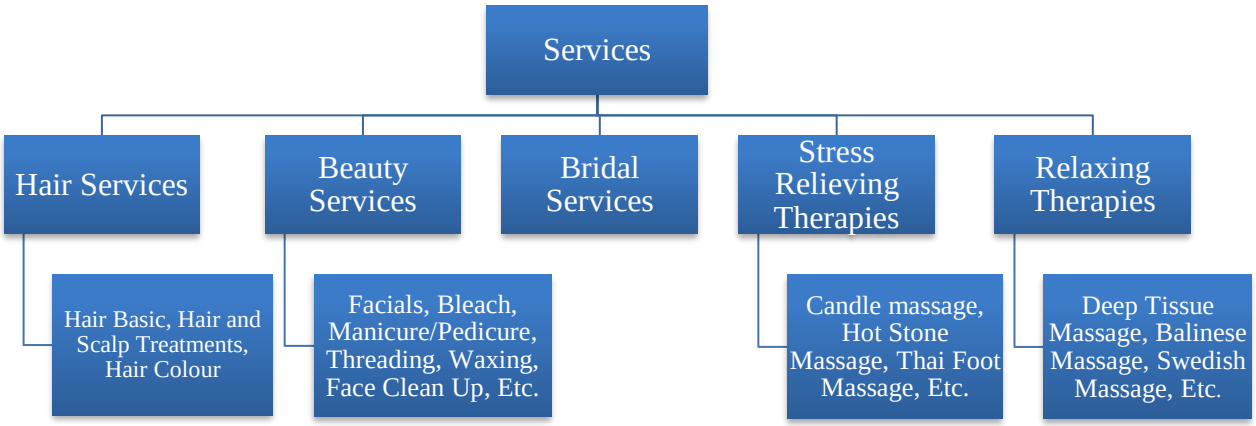
Neomi’s Salon & Spa is located in six different locations, which are as follows:

1. Miramar
2. Patto, Panjim
3. Mapusa
4. Calangute
5. Margao
6. Ponda

Le Meridian & Calangute Branches are the two branches located in Calangute itself. There are at present a total of seven locations for Neomis Salon & Spa, of which three—in Margao, Ponda, and Calangute—are solely hair and beauty salons.

Services

The services of Neomi's Salon & Spa are categorized as follows:



SWOT Analysis

Strengths:

1. Knowledge and expertise in offering services for wellness and beauty.
2. A good location that is easily accessible and highly visible.
3. A wide range of services, such as waxing, facials, massages, and haircuts.
4. Professional workforce that has received training to deliver top-notch services.
5. A strong brand reputation and excellent recommendations from others.

Weaknesses:

1. A lot of competition in the market.
2. Exorbitant overhead costs brought on by staffing, equipment, and supplies.
3. Due to the nature of the industry, there is a high staff turnover rate.
4. Reliance on a select group of essential employees.

Opportunities:

1. Services are being expanded to accommodate the escalating demand for cutting-edge trends and technologies.
2. The implementation of loyalty programmes to improve client retention.
3. Collaboration with related companies, including hotels, gyms, and wedding planners.
4. Growth into new geographical and market areas.
5. Introduction of online booking and appointment scheduling systems.

Threats:

1. Economic downturns and fluctuations in consumer spending.
2. Changes in consumer preferences and trends.
3. Emergence of new competitors and established competitors expanding their services.
4. Increased regulations and licensing requirements.
5. Negative reviews and customer complaints impacting the business's reputation.

VRIN Analysis

Sr. No.	Particulars	Valuable	Rare	Inimitable	Non-Substitutable
1	Skilled & Knowledgeable Staff	✓	✓	✓	✓
2	Wide Range of Services	✓			
3	Location	✓	✓		
4	Personalised & Relaxing Experience	✓			✓
5	Strong Brand Reputation	✓	✓	✓	

Value:

1. Skilled and knowledgeable staff trained to provide high-quality services.
2. Wide range of services including haircuts, massages, facials, nail care, and waxing.
3. Good location with high visibility and accessibility.
4. Strong brand reputation and positive word-of-mouth referrals.
5. Ability to provide a personalized and relaxing experience for customers.

Rarity:

1. Expertise and experience in providing beauty and wellness services.
2. Good location with high visibility and accessibility.

3. Strong brand reputation and positive word-of-mouth referrals.

Inimitability:

1. Skilled and knowledgeable staff trained to provide high-quality services may be difficult for competitors to replicate.
2. Strong brand reputation and positive word-of-mouth referrals may be difficult for competitors to replicate.

Non-Substitutability:

1. The personalized and relaxing experience provided by the salon and spa may be difficult for competitors to substitute.
2. The skilled and knowledgeable staff may be difficult for competitors to substitute.

Based on this analysis, the salon and spa has several valuable and rare resources and capabilities that may be difficult for competitors to replicate or substitute, making it a strong player in the industry.

Industry Profile

The demand for beauty and health services among consumers has led to a boom in the salon and spa sector in India in recent years. The sector includes a variety of companies that provide services like hair care, skin care, massages, and other aesthetic treatments, ranging from modest neighbourhood salons to upmarket luxury spas. With new competitors entering the market and established brands expanding their product lines, the sector has grown more competitive.

Several reasons, such as evolving aesthetic standards, rising disposable income, and rising consumer awareness of health and wellness, are driving the demand for salon and spa services in India. Indian consumers are growing increasingly picky about the beauty and wellness services they want, with many of them looking for high-quality goods and services that are both efficient and affordable.

The sector is also driven by technology developments, including new beauty and wellness equipment, digital marketing, and online booking systems, which are assisting salons and spas in enhancing their clientele experiences and extending their reach. The industry must, however, also manage a number of difficulties, including governmental restrictions, economic changes, and shifting consumer tastes.

The salon and spa care industry in India was valued at USD 3.7 billion in 2020 and is expected to reach USD 5.5 billion by 2025, growing at a CAGR of 8.2%. The industry is dominated by unorganized players, with over 90% of the market share held by small and medium-sized enterprises.

Overall, the salon and spa market in India is vibrant and quickly changing due to shifting consumer preferences and fashions. Businesses will need to stay competitive and innovative to fulfil Indian consumers' aspirations as the sector grows and expands.

Sources:

"India Salon and Spa Market - Growth, Trends, COVID-19 Impact, and Forecasts (2021 - 2026)" by Mordor Intelligence

"Indian Salon Industry Report 2021" by RNCOS E-Services Pvt. Ltd.

"Indian Beauty & Personal Care Industry: An Overview" by IBEF (India Brand Equity Foundation)

"India Wellness Industry Outlook 2022" by Ken Research.

PESTEL Analysis

PESTEL analysis of the salon and spa industry in India:

1. Political:
    - Political instability can also have an impact on corporate operations and investments.
    - Government policies and regulations, such as licencing requirements, tax rates, and labour laws, can have an impact on the industry's operations.
2. Economic:
    - Economic downturns can have a big influence on business growth because the salon and spa industry in India is so dependent on consumer spending and disposable income.
    - The price of imported goods and equipment can also be impacted by currency fluctuations.
3. Sociocultural:
    - The industry's product and service offerings may change as Indian consumers' standard for beauty and preferences do.
    - Consumers' growing awareness of health and wellness issues may potentially increase demand for spa and wellness services.
4. Technological:
    - Technology advancements like online reservations and digital marketing can assist salons and spas in enhancing the client experience and extending their reach.
    - The quality of the services provided can also be improved through technological advancements in beauty and wellness equipment.

5. Environmental:

    - Consumer choices for eco-friendly and sustainable salon and spa goods might be influenced by environmental concerns.
    - The range of products offered by the sector may also be impacted by government restrictions on the usage of specific chemicals and materials.

6. Legal:

- The industry is subject to a number of laws, including labour laws, health and safety restrictions, and licencing rules.
- Laws governing intellectual property can also limit an industry's capacity to create and safeguard new goods and technologies.

Overall, a variety of economic, sociological, and technological issues, as well as governmental regulations and environmental concerns, have an impact on the salon and spa sector in India. To stay competitive, the industry must also adhere to a number of legislative requirements as well as modify to shifting consumer trends and tastes.

PORTER's Five Forces Analysis

Porter's Five Forces analysis of the salon and spa industry in India:

Threat of New Entrants (Moderate):

The salon and spa industry in India has a moderate threat of new entrants. While it is relatively easy to start a small-scale salon or spa business, establishing a brand name and reputation in the industry requires significant investment in infrastructure, equipment, and skilled staff. Established brands with a strong customer base have a competitive advantage, making it difficult for new entrants to gain market share.

Bargaining Power of Suppliers (Moderate):

Suppliers of salon and spa products and equipment in India have a moderate bargaining power. While there are a large number of suppliers in the market, the industry demands high-quality, specialized products that require specific skills to manufacture. The suppliers' bargaining power

is further influenced by the availability of substitute products and the number of buyers in the market.

Bargaining Power of Buyers (High):

Buyers in the salon and spa industry in India have a high bargaining power. Consumers have access to a wide range of salons and spas, and can easily switch to a different provider if they are not satisfied with the quality of service or price. Additionally, social media and online reviews have given consumers more power to voice their opinions and influence other potential customers.

Threat of Substitutes (Moderate):

The threat of substitutes in the salon and spa industry in India is moderate. Consumers have access to a range of beauty and wellness alternatives, such as home remedies and DIY beauty treatments. However, the convenience and expertise offered by professional salons and spas make them a preferred choice for many consumers.

Intensity of Competitive Rivalry (High):

The competitive rivalry in the salon and spa industry in India is high. The industry is fragmented, with many small and medium-sized players competing with established brands for market share. The competitive rivalry is influenced by factors such as price, location, service quality, and brand reputation. The industry is also influenced by seasonal fluctuations, with demand for services higher during the wedding and festival seasons.

Overall, the salon and spa industry in India is a dynamic and competitive market, with opportunities and challenges for both established players and new entrants. Businesses need to continually adapt to changing consumer preferences, adopt new technologies, and improve their service quality to stay ahead of the competition.

Project Introduction

Valuation & Financial Modeling of Neomi's Salon & Spa

An important consideration in making investing decisions is a company's valuation. To ascertain a company's fair value, one must evaluate its financial situation, capacity for growth, and market environment. For a variety of reasons, such as mergers and acquisitions, initial public offerings, and private equity investments, valuation is essential. The process of valuing a business is intricate and necessitates a profound knowledge of financial concepts, market trends, and business dynamics. The discounted cash flow method, price-to-earnings ratio method, market value of invested capital method, among others, are some of the approaches that analysts and investors use to value companies. Making wise investment choices and maximising profits require an understanding of the factors that affect company valuation. In this study, I am going study and find the firms forecasted value for the next 7 without any scaling up or expansion and then assess the firms forecasted value for seven years when it decides to scale up by opening one additional outlet, this is done by considering various scenarios by showing changes in the growth rates, cost of capital and debt-equity mix, as this will help to determine if the firm should decide to scale up or stay as it is, and if the firm decides to scale up it will help them decide to select the debt-equity mix which will benefit them.

Literature Review

The process of valuing a company entails determining the value of a firm by scrutinizing its financial statements, market environment, and possibilities for the future. This overview of the literature looks at different methods for valuing businesses as well as the variables that affect it.

1. Damodaran, A. (1996). Evaluating Investment Returns. The Journal of Portfolio Management, 22(3), 9-18.
    - In this study, Damodaran examined the effectiveness of various valuation methods, including the DCF method, in valuing companies. The study found that the DCF method was the most reliable method for valuing companies, as it was based on the company's

future cash flows and provided a comprehensive analysis of the company's intrinsic value.

2. Fernandez, P., Aguirreamalloa, J., & Corres, L. (2000). Market valuation of the assets and liabilities of Spanish banks. Journal of Banking & Finance, 24(2), 157-183.
   - This study examined the effectiveness of the DCF method in valuing Spanish banks. The study found that the DCF method was effective in valuing banks, as it provided a comprehensive analysis of the bank's future cash flows and potential for growth.
3. Dichev, I. D., & Tang, V. W. (2009). Earnings volatility and earnings predictability. Journal of Accounting and Economics, 47(1-2), 160-181.
   - This study examined the relationship between earnings volatility and earnings predictability in valuing companies using the DCF method. The study found that companies with more predictable earnings had higher valuations than those with more volatile earnings.
4. Ooi, J. T., Ong, S. E., & Huang, W. (2010). Equity valuation using discounted cash flow method: Evidence from the Chinese stock market. International Journal of Business, 15(2), 169-183.
   - This study examined the effectiveness of the DCF method in valuing Chinese companies. The study found that the DCF method was effective in valuing Chinese companies, as it provided a comprehensive analysis of the company's future cash flows and potential for growth.
5. Sharma, N., & Sharma, R. (2016). A comparative study of discounted cash flow models. Journal of Advances in Management Research, 13(2), 205-217.
   - This study compared the effectiveness of different DCF models in valuing companies. The study found that the dividend discount model (DDM) was the most effective DCF model for valuing companies with stable dividend payouts, while the free cash flow to equity model (FCFE) was the most effective for valuing companies with volatile dividend payouts.

Overall, these studies demonstrate the effectiveness of the DCF method in valuing companies and provide insights into the various factors that can impact the valuation using this method.

Project Objectives

1. To determine the present value of the firm without any decision of expansion with a seven-year forecast.
2. To determine the Net Present Value, IRR, Discounted Payback Period of the project/firm after it decides to scale up by adding another three outlets with a forecast of seven years.
3. To find out if there is a significant difference between the cash flows in the negative, neutral and positive scenarios in all of the debt-equity mixes.

Project Methodology

- Type of Study: Descriptive study.
- Time period of data: 7 years financial statement of the industry & index.
- Type of data to be used: Secondary data.
- Statistical tests/financial models to be used: Discounted cash flow method with a combination of scenario analysis & Anova Test, Net Present Value, Internal Rate of Return, Payback Period.
- Tools used: Microsoft Excel, Capitaline Database.

Data Analysis and Project Findings

Objective 1

To determine the present value of the firm without any decision of expansion with a seven-year forecast.

Scenarios:

The scenarios were made based on the industry growth rate, these rates were used to get a sales forecast of seven years. As seen in the table below the neutral scenario is a growth rate of 5.5%, the negative scenario is a growth rate of 0.6%, the positive scenario is a growth rate of 10.3%. The scenarios were found by using the financial data procured from the Capitaline database.

Senarios	Growth Rate
Negative	0.6%

Neutral	5.5%
Positive	10.3%

Cost of Capital:

The cost of capital of the firm would be the opportunity cost of capital on own funds which 14.4%. The opportunity cost is calculated on the opportunity forgone on investing in the index fund. Since the company has no debt, there is no further cost of capital.

Cost Of Capital	
Opportunity Cost	14.4%

Depreciation

The depreciation method used is Written Down Value Method where the depreciation rates for various assets are as per Companies Act.

Present value of the firm:

The present value of the firm was found out using the discounted cash flow method for three different scenarios for the forecasted seven years. As we can see in the table the PV's (present value) in the Negative scenario for the PV of the firm is positive only in the first year, for the rest of the seven years the PV is negative. The PV's in the Neutral and Positive scenarios are all positive, the shows us that the firm would be in profits only in the Neutral and Positive scenarios.

Years	CF (Negative)	CF (Neutral)	CF (Positive)
1	1116190.592	2590197.07	4064203.548
2	-566221.6873	2097625.843	4887890.977
3	-1935927.205	1675237.077	5637216.785
4	-3043259.813	1308953.772	6310414.736
5	-3928251.683	990347.3138	6910631.907

6	-4623994.58	713040.5343	7441389.794
7	-5158782.497	471957.1707	7906838.607

Objective 2

To determine the Net Present Value, IRR, Discounted Payback Period of the project/firm after it decides to scale up by adding another three outlets with a forecast of seven years.

Funds Required:

Now the in this scenario the firm is supposed to scale up by adding another outlet, the funds required for this project is ₹ 29,616,996.00 which is close to 3 crore, so we decided to raise 3 crore and keep the remainder as a contingency fund.

Scenarios & Cost of Capital:

First the scenarios were made based on the industry growth rate, these rates were used to get a sales forecast of seven years. As seen in the table below the neutral scenario is a growth rate of 5.5% and a debt rate of 15%, the negative scenario is a growth rate of 0.6% and a debt rate of 16.5%, the positive scenario is a growth rate of 10.3% and a debt rate of 13.5. The scenarios were found by using the financial data of the industry procured from the Capitaline database.

Senarios	Growth Rate	Debt Rates
Negative	0.6%	16.50%
Neutral	5.5%	15%
Positive	10.3%	13.50%

Next, there were more scenarios made based on the debt-equity mix and debt rate for which we got different scenarios for cost of capital as well. As seen in the table below the debt-equity mix

were given five different scenarios, which were 0/100, 25/75, 50/50, 75/25, 100/0. There were 3 different scenarios for debt rate as well which were 13.50%, 15% & 16.50%. Based on the debt-equity mix and debt rate the weighted average cost of capital was found for their respective scenarios.

			Debt Rate			
Debt-Equity Mix	**Debt**	**Equity**	**13.50%**	**15%**	**16.50%**	
0/100	₹ -	₹ 10,000,000.00	14.00%	14.00%	14.00%	Weighted Average Cost Of Capital
25/75	₹ 2,500,000.00	₹ 7,500,000.00	13.00%	13.00%	14.00%	
50/50	₹ 5,000,000.00	₹ 5,000,000.00	12.00%	12.00%	13.00%	
75/25	₹ 7,500,000.00	₹ 2,500,000.00	11.00%	11.00%	12.00%	
100/0	₹ 10,000,000.00	₹ -	9.00%	11.00%	12.00%	

Depreciation:

The depreciation method used is Written Down Value Method where the depreciation rates for various assets are as per Companies Act.

NPV, IRR, DPBP of the project:

0/100 Debt-Equity mix

The NPV for 0/100 debt-equity mix in the neutral and positive scenarios are positive, NPV in the negative scenario is negative. Highest NPV is obtained in the positive scenario. The IRR in the negative scenario cannot be found as the cash inflows are negative and they do not reach at a 0 NPV, in the neutral scenario the IRR is 14% and in the positive scenario the IRR is 36% which is

the highest among all. The PBP for the negative scenario cannot be found as the cash inflows are negative and they don't reach at a 0 NPV, the PBP for neutral and positive scenarios are 4.8 years and 2.4 years respectively. PBP in the positive scenario is the lowest.

0/100 Debt-Equity Mix			
	Negative	**Neutral**	**Positive**
Debt Rate	**16.5%**	**15.0%**	**13.5%**
NPV	₹ -28,754,430.15	₹ 13,767,087.64	₹ 56,805,941.94
IRR	N.A	14%	36%
Payback Period	N.A	4.8	2.4

25/75 Debt-Equity mix

The NPV for 25/75 debt-equity mix in the neutral and positive scenarios are positive, NPV in the negative scenario is negative. Highest NPV is obtained in the positive scenario. The IRR in the negative scenario cannot be found as the cash inflows are negative and they do not reach at a 0 NPV, in the neutral scenario the IRR is 12% and in the positive scenario the IRR is 36% which is the highest among all. The PBP for the negative scenario cannot be found as the cash inflows are negative and they don't reach at a 0 NPV, the PBP for neutral and positive scenarios are 4.9 years and 2.4 years respectively. PBP in the positive scenario is the lowest.

25/75 Debt-Equity Mix			
	Negative	**Neutral**	**Positive**
Debt Rate	**16.5%**	**15.0%**	**13.5%**
NPV	₹ -31,908,484.39	₹ 12,634,782.91	₹ 57,852,710.17
IRR	N.A	12%	36%
Payback Period	N.A	4.9	2.4

50/50 Debt-Equity mix

The NPV for 50/50 debt-equity mix in the neutral and positive scenarios are positive, NPV in the negative scenario is negative. Highest NPV is obtained in the positive scenario. The IRR in the negative scenario cannot be found as the cash inflows are negative and they do not reach at a 0 NPV, in the neutral scenario the IRR is 11% and in the positive scenario the IRR is 36% which is the highest among all. The PBP for the negative scenario cannot be found as the cash inflows are

negative and they don't reach at a 0 NPV, the PBP for neutral and positive scenarios are 5.1 years and 2.4 years respectively. PBP in the positive scenario is the lowest.

50/50 Debt-Equity Mix			
	Negative	**Neutral**	**Positive**
Debt Rate	**16.5%**	**15.0%**	**13.5%**
NPV	₹ -36,106,340.54	₹ 11,437,464.62	₹ 58,958,857.84
IRR	N.A	11%	36%
Payback Period	N.A	5.1	2.4

75/25 Debt-Equity mix

The NPV for 75/25 debt-equity mix in the neutral and positive scenarios are positive, NPV in the negative scenario is negative. Highest NPV is obtained in the positive scenario. The IRR in the negative scenario cannot be found as the cash inflows are negative and they do not reach at a 0 NPV, in the neutral scenario the IRR is 10% and in the positive scenario the IRR is 35% which is the highest among all. The PBP for the negative scenario cannot be found as the cash inflows are negative and they don't reach at a 0 NPV, the PBP for neutral and positive scenarios are 5.2 years and 2.3 years respectively. PBP in the positive scenario is the lowest.

75/25 Debt-Equity Mix			
	Negative	**Neutral**	**Positive**
Debt Rate	**16.5%**	**15.0%**	**13.5%**
NPV	₹ -40,563,258.09	₹ 10,173,188.51	₹ 60,142,324.02
IRR	N.A	10%	35%
Payback Period	N.A	5.2	2.3

100/0 Debt-Equity mix

The NPV for 75/25 debt-equity mix in the neutral and positive scenarios are positive, NPV in the negative scenario is negative. Highest NPV is obtained in the positive scenario. The IRR in the negative scenario cannot be found as the cash inflows are negative and they do not reach at a 0 NPV, in the neutral scenario the IRR is 7% and in the positive scenario the IRR is 35% which is the highest among all. The PBP for the negative scenario cannot be found as the cash inflows are

negative and they don't reach at a 0 NPV, the PBP for neutral and positive scenarios are 5.6 years and 2.2 years respectively. PBP in the positive scenario is the lowest.

100/0 Debt-Equity Mix			
	Negative	**Neutral**	**Positive**
Debt Rate	**16.5%**	**15.0%**	**13.5%**
NPV	₹ -44,158,987.27	₹ 7,647,384.43	₹ 65,098,608.57
IRR	N.A	7%	36%
Payback Period	N.A	5.6	2.2

Objective 3

To find out if there is a significant difference between the cash flows in the negative, neutral and positive scenarios in all of the debt-equity mixes.

Anova

Anova test is a statistical method used to compare the means of two or more groups and determine if there is a significant difference among them. It calculates an F-value and a p-value to evaluate the null hypothesis that there is no significant difference among the groups. If the p-value is lower than the significance level (usually set at 0.05), the null hypothesis is rejected, indicating that there is a significant difference among the groups.

I performed an Anova test to find out the difference in variances between the groups Negative, Neutral & Positive scenarios in all of the debt-equity mixes.

Anova	Groups	F	P-Value
0/0 Dept-Equity Mix	(Negative, Neutral, Positive)	42.15571956	1.61486E-07
0/100 Dept-Equity Mix	(Negative, Neutral, Positive)	18.24110001	4.68987E-05
25/75 Dept-Equity Mix	(Negative, Neutral, Positive)	21.5959474	1.64895E-05

50/50 Dept-Equity Mix	(Negative, Neutral, Positive)	24.74485895	6.82832E-06
25/75 Dept-Equity Mix	(Negative, Neutral, Positive)	27.78984335	3.13784E-06
100/0 Debt-Equity Mix	(Negative, Neutral, Positive)	31.96150582	1.19344E-06

H_0 = There is no significant difference between the cash flows of the Negative, Neutral and Positive scenarios.

As we can see that the P-values for all the debt-equity mixes and between the Negative, Neutral and Positive scenarios are all less than 0.05 we reject the null hypothesis. This means that there is a significant difference between the groups.

Higher F Values shows us that there is a significant variation between group means.

Therefore we can say that the negative scenario will give us a lower valuation, the neutral scenario will give us a moderate valuation and the positive scenario will give us a higher valuation.

T-Test

T-test is a statistical method used to compare the means of two groups and determine if there is a significant difference between them. It calculates a t-value and a p-value to evaluate the null hypothesis that there is no significant difference between the means of the two groups. If the p-value is lower than the significance level (usually set at 0.05), the null hypothesis is rejected, indicating that there is a significant difference between the means of the two groups.

I performed a T- Test to find out the mean difference between the groups Negative, Neutral & Positive scenarios in all of the debt-equity mixes.

T-Test				
		T Stat	P (One Tail)	P (One Tail)
0/0 Debt-Equity Mix	Negative V/S Neutral	-4.222122384	0.001963131	0.003926262
	Negative V/S Positive	-7.701660149	2.86743E-05	5.73486E-05
	Neutral V/S Positive	-8.029266533	5.70206E-06	1.14041E-05
0/100 Debt-Equity Mix	Negative V/S Neutral	-2.476008751	0.017610666	0.035221331
	Negative V/S Positive	-5.485235056	0.000767941	0.001535883
	Neutral V/S Positive	-5.390015446	0.000509672	0.001019345
25/75 Debt-Equity Mix	Negative V/S Neutral	-2.711573954	0.011967867	0.023935734
	Negative V/S Positive	-5.90094891	0.000299453	0.000598906
	Neutral V/S Positive	-5.916982877	0.000177447	0.000354894
50/50 Debt-Equity Mix	Negative V/S Neutral	-2.967074315	0.008975585	0.017951169
	Negative V/S Positive	-6.215257774	0.000219346	0.000438692
	Neutral V/S Positive	-6.287669567	4.52587E-05	9.05175E-05
75/25 Debt-Equity Mix	Negative V/S Neutral	-3.237861306	0.005957876	0.011915753
	Negative V/S Positive	-6.481756686	9.58797E-05	0.000191759
	Neutral V/S Positive	-6.424917511	1.63972E-05	3.27944E-05
100/0 Debt-Equity Mix	Negative V/S Neutral	-3.46505718	0.004252153	0.008504307
	Negative V/S Positive	-6.863208974	3.68178E-05	7.36356E-05
	Neutral V/S Positive	-6.277039829	3.01384E-05	6.02768E-05

H_0 = There is no significant difference between the cash flows of the Negative, Neutral and Positive scenarios.

The table shows the results of several t-tests conducted on different groups with varying debt-equity mixes. The table includes the t-statistic, the p-value for a one-tailed test in each direction, and the p-value for a two-tailed test. The t-tests were conducted to determine whether there were significant differences in means between the groups being compared.

For each debt-equity mix ratio, there are three t-tests comparing the groups with negative, neutral, and positive scenarios. The t-statistic is negative for all tests, indicating that the means of the negative groups are lower than the means of the other groups being compared. The p-values for the one-tailed tests are all lower than 0.05, indicating that the differences between the means are statistically significant. The p-values for the two-tailed tests are all even lower than the one-tailed tests, providing additional evidence of significant differences. Hence, we can reject the null hypothesis.

Overall, the t-tests suggest that the sentiment of a group is significantly related to its mean, and that negative sentiment tends to result in lower means than neutral or positive sentiment. Additionally, the t-tests provide evidence that the debt-equity mix ratio is also related to the means, with groups having lower debt ratios having higher means than groups with higher debt ratios.

Conclusion

The report presents the results of three objectives.

The first objective aimed to determine the present value of the firm without any decision of expansion with a seven-year forecast. Three scenarios were presented based on the industry growth rate: negative, neutral, and positive. The present value of the firm was calculated using the discounted cash flow method for each scenario. The cost of capital was calculated based on the opportunity cost of capital on own funds, which was 14.4%. The depreciation method used was the Written Down Value Method. The report shows that the firm would be profitable in the Neutral and Positive scenarios, but not in the Negative scenario.

The second objective presents the financial analysis of a project/firm that plans to scale up by adding three outlets with a forecast of seven years. The report includes the funds required, scenarios based on the industry growth rate and debt rates, cost of capital for various debt-equity mix and debt rates, and the depreciation method used. The net present value (NPV), internal rate of return (IRR), and discounted payback period (DPBP) of the project were calculated for different scenarios. The results show that the highest NPV is obtained in the positive scenario with a 100/0 debt-equity mix and a debt rate of 16.5%. The IRR is highest in the positive scenario for 0/100, 25/75, and 100/0 debt-equity mixes. The PBP in the positive scenario is the lowest for both 75/25 and 100/0 debt-equity mixes. Therefore, based on the analysis, it is recommended that the project should be undertaken with a 100/0 debt-equity mix and a debt rate of 16.5% if it has a high risk tolerance and to maximize the returns.

The third objective of this analysis was to determine if there is a significant difference between the cash flows in the negative, neutral, and positive scenarios in all of the debt-equity mixes. The Anova test was performed to compare the means of the three groups, and the t-test was conducted to find the mean difference between the groups. The p-values of both tests were less than the significance level of 0.05, indicating that there is a significant difference between the groups. The higher F and t-values show that there is a significant variation between group means. Thus, it can be concluded that the negative scenario will provide a lower valuation, the neutral scenario will give a moderate valuation, and the positive scenario will result in a higher valuation for all the debt-equity mixes.

Work Done & Learnings Derived

- Performed a small internal audit to check the Petty Cash expenses and Purchases.
- I did data entries in the accounting software tally ERP for daily petty cash expenses.
- Filed Petty Cash and Purchase Vouchers.
- Learned to use Tally ERP Software
- Learned to use Divine Beauty Software which a MIS and ERP software.
- Learned financial modeling for valuing a company.
- Learned how to value a company.

References

- Financial Management by I.M. Pandey
- Financial Modeling Using Excel by