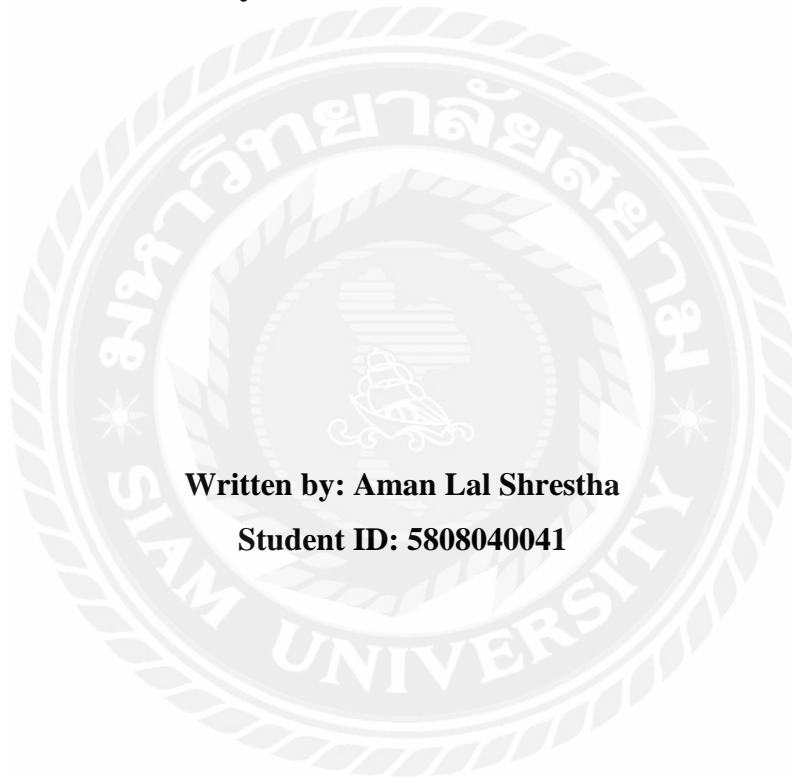




Cooperative Education Report

Data Analysis at a Financial News Portal



Written by: Aman Lal Shrestha

Student ID: 5808040041

This report is submitted as per requirement of Siam University upon completion of
Cooperative Education (Internship), Faculty of Business Administration

Academic Semester 2/2018

Siam University

Title: Data Analysis at a Financial News Portal

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We approve this cooperative education report as a partial fulfillment of the cooperative education program semester 2/2017

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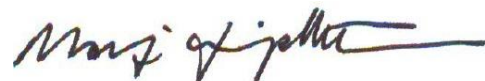
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Academic Year: 2/2018

ABSTRACT

This cooperative report entitled “Data Analysis at a Financial News Portal” has the goal to study how data analysis is done for a Financial News Portal company. Objectives of the study includes: (1) To Learn Technical Analysis which will help its users to make investment decision with calculated risk, (2) To Increase Personal Relationship as well as knowledge in the Industry of Finance and Banking (3) To apply theoretical knowledge learnt at the college and grasp understanding about how a financial news portal operates and (4) To enhance my research and data analysis skill which will help me to become better analyst in the future. With the company, I was assigned to work as a Data Analyst Intern, in the Operations Department. The main responsibilities assigned to me was to conduct data analysis with the user data available at the company, conduct technical analysis of stocks, currencies and stock market index and conduct competitive analysis of the major competitors of the company.

Upon the completion of the internship, it was found that the problem was resolved by means of researching and conducting various analyses from the information gathered from secondary sources and company’s database. In this manner, I was able to learn more how a financial news portal operates and serves its client with the use of researching and data analytics technique which will be vital for my future career development and profession.

Keywords: Market Index, Technical Analysis, Users

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Last but not the least, I am very thankful towards Ms. Niva Shrestha and Ms. Abha Poudel for giving suggestions and advises which was used for the improvement and betterment of this report. Without their contribution this report would had not been completed in a proper and timely fashion.

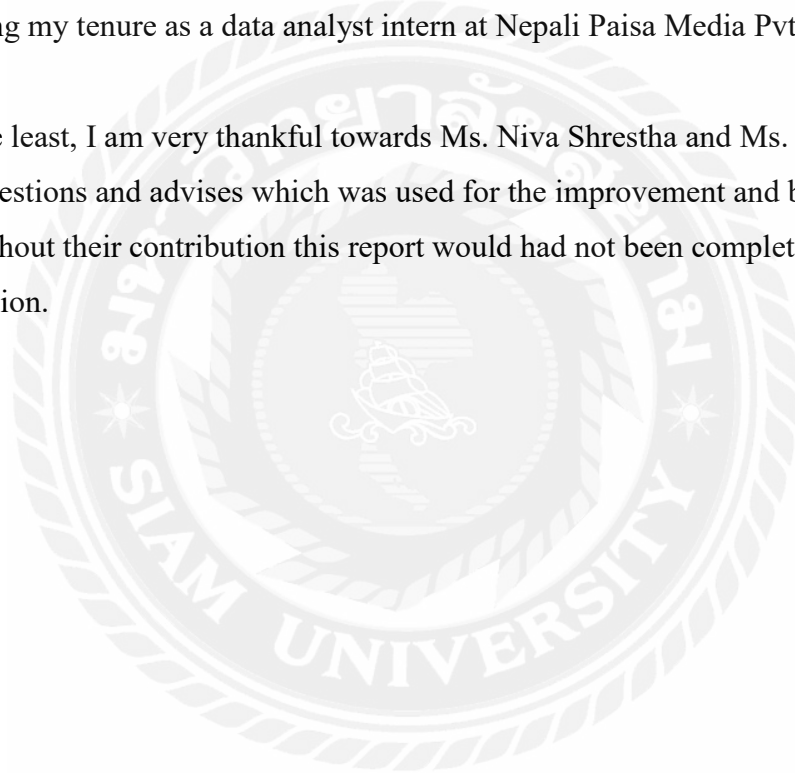


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Chapter 1: Introduction

1.1 Company Profile

Nepali Paisa Media Pvt. Ltd was founded by Mr. Ajay Shrestha and Mr. Abhijit Shrestha. It formally started operating in 20 July 2016. Nepali paisa uses its official website www.nepalipaisa.com to provide news about the companies financials, Capital Market, Financial institutions, Regulatory bodies (such as Securities Board of Nepal, Nepal Stock Exchange and Nepal Rastra Bank) to the general public (Appendix 1 shows the home page of the website). Apart from that the company also gives training to public on investment, technical analysis and stock market. The types of training that the company provides are listed below:

- **Beginners – Star Investing in Share Market:** This three day will provide the client introductory theoretical base and more practical dash on primary and secondary market share investment. Participants will learn to select good companies share from the listed companies. Training will cover how to optimize returns by applying key tips and tricks. How to avoid common mistakes in the share market will also be focused in this training.
- **NEPSE Basics:** In this 7 days training, trainees will be taught the basics of Nepalese Stock Market. After the completion of the training, the trainees will have a clearer picture of Nepalese Stock Market, how it functions and having acquired all the basic knowledge, the trainees will be confident enough to make their investment decision.
- **Basics of Technical Analysis:** In this 7 days of training, trainees will be taught the basics of Technical Analysis. After the completion of the course, all the trainees will gain insight on what exactly is Technical Analysis, how it functions and having acquired all the basic knowledge, a trainee will be confident enough to make their investment decisions by using tools such as charts, volumes and other major indicators and oscillators.
- **Hybrid Investment Training:** This 3 days training will provide you the solid confidence that you can start hybrid investment scheme with your little savings. The training is about how to make your money work hard for you rather than

doing hard work by yourself. In the training, we will prove that the unique blend of 100% legal, very safe and less work can generate the unbelievable amount of money in the long run.

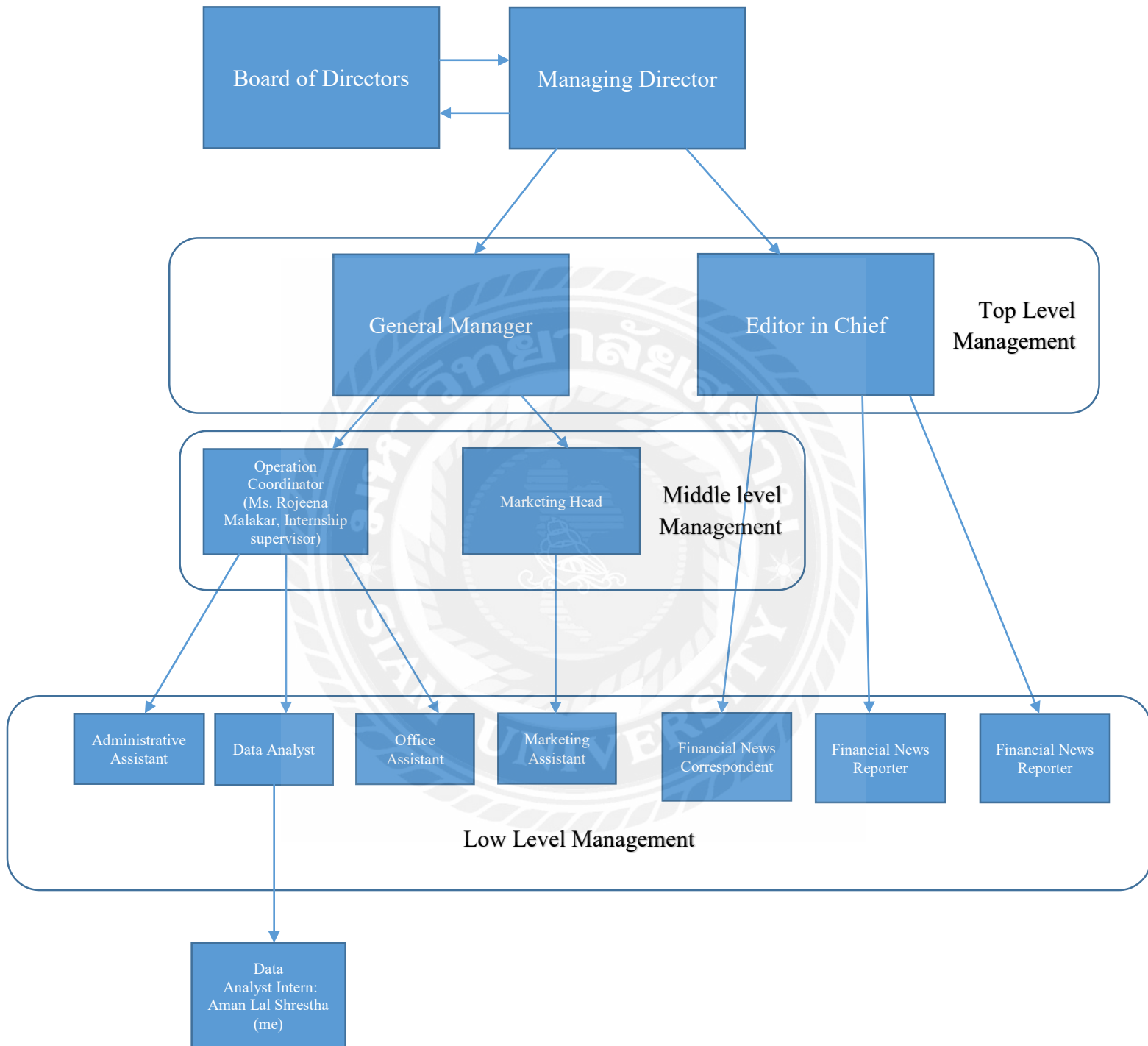
- One Day Share Market Training: This one day (6 hours) training is really power packed about everything you should know before entering share market. It quickly gives you basic knowledge, let you know what you should prepare to be ready to go. It also covers how to search best shares from the flooding market that makes you winner and provides practical exposure too. So, this is "all in one" valuable training within 1-day time (NepaliPaisa).

Nepali Paisa Media Pvt. Ltd's mission statement, vision and core values are give below:

- Mission Statement: "Our mission is to provide reliable and unbiased financial information by continuously creating distinct products and services."
- Vision: "Our vision is to be most innovative financial media company revolutionizing how stakeholders use information in their investment decision."
- Core values:
 - Innovate to lead
 - Be adventurous, take risk and grow
 - Ethics driven information sharing

Its been almost 3 years the company's website has gone online and since then it has been able to gather 1,761,155 total audiences and fulfilled their need for information Nepal's economy, Stock market and Listed companies. Further more within these years the company has been trained thousands of client and is able to make them self sufficient for making their investment decision.

1.2 Organizational Structure



1.3 Statement of Report

I, Aman Lal Shrestha hereby declare that the report entitled “ Data Analysis at a Financial News Portal” is created uniquely and solely created by me after the completion of the Cooperative Education internship of 4 months at Nepali Paisa Media Pvt. Ltd, however some supervision and guidance has been taken from supervisors assigned to me from Siam University, Bangkok as well as Kathmandu College of Management (KCM), Nepal.

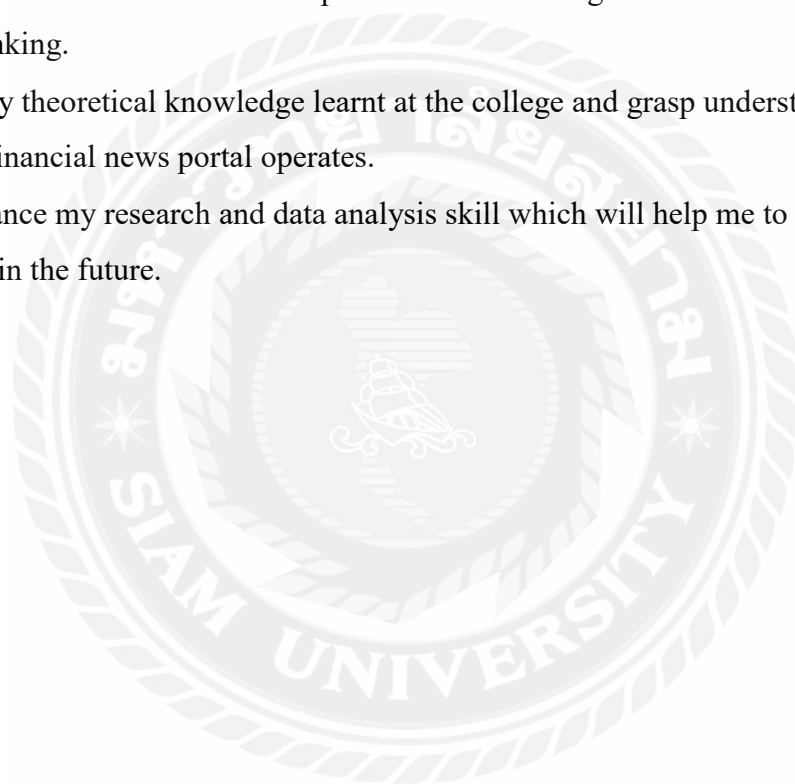
I also confirm that, the report is only prepared for my academic requirement and not for any other purpose. It might not be used with the interest of opposite party of the corporation.

Aman Lal Shrestha
Student ID: 5808040041
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1.4 Objective of the study

The main objective of joining as a data analyst intern at Nepali Paisa Media was to conceptualize the related knowledge gained from courses studied at Siam University, Thailand and Kathmandu College of Management, Nepal at the real life working environment. This internship was conducted for students to develop themselves as a professional for future full time employment. During the internship period I had plan to achieve the following goals:

- To learn Technical Analysis which will help its users to make investment decision with calculated risk.
- To Increase Personal Relationship as well as knowledge in the Industry of Finance and Banking.
- To apply theoretical knowledge learnt at the college and grasp understanding about how a financial news portal operates.
- To enhance my research and data analysis skill which will help me to become better analyst in the future.



1.5 My roles and responsibility

- Technical Analysis: I needed to conduct technical analysis of commodities, currencies, Stock market index by actively analyzing the price actions and using other indicators and oscillators such as *Ichimoku Kinko Hyo, Support and Resistance, Simple and Exponential Moving Averages, and Moving Averages Crossover/ Divergences, etc.*
- Research: Another one of my responsibility was to conduct day-to-day research about how Nepali Paisa Media Pvt. Ltd would be able to provide better services to its users by assessing the ever changing dynamics of news portal industry.
- Competitive analysis: Competitive analysis refers to the evaluation of the competitors' product/service and how a company can make it's product/services unique from its competitors (Entrepreneur.com). I was assigned to actively monitor the moves of Nepali Paisa's major competitors made in a day-to-day basis. I needed to mark down all the changes the competitors made in their websites, read all the new articles and news they published everyday and list the name of all the new companies that placed ads in the competitors' website.
- Data Analysis: Nepali Paisa had a lot of users' data that they were able to gather during its years of operation. This data was collected on a web analytics service provided by google named "Google Analytics". Google Analytics is a web based analytical service which helps its customers to track and report website traffic currently as a platform inside the Google Marketing Platform brand (Google Marketing Platform).

This platform provided various of information relating to company's website such as sources of acquisition of users, top key strings used for acquisition of users, statistics regarding the total number of users and total number of new users.

With the use of this data, I was involved in various of analysis with use of some statistical tools such as Co-relation and regression analysis conducted on Microsoft Excel.

Chapter 2: Internship Activities

2.1 Assignment and responsibility of the student

An explanation of some of the responsibilities assigned to me are listed as follows:

- **Creation of Technical Analysis Report:**

Technical analysis is a method of financial analysis using patterns in the market data to identify trends and make prediction (Investopedia). I was under the indirect supervision of Mr. Utsav Neupane who was the General Manager and a Technical Analyst who analyses stocks, commodities and currencies. I took up the Technical Analysis training that the company provided. After the completion of the training I was assigned to make Technical Analysis report for the Nepal Stock Market and some of the specified listed company in the Nepal Stock Market. While conduction of this task I needed to use indicators and oscillators such as *Ichimoku Kinko Hyo, 200 Days Simple, Relative Strength Index, Support and Resistance*. (Appendix 2 Shows all the indicators used to create this report). With the use of this report, prediction of the movement of the prices of stock market index, companies as well as commodities were to be made.

- **Creation of Competitive analysis report:**

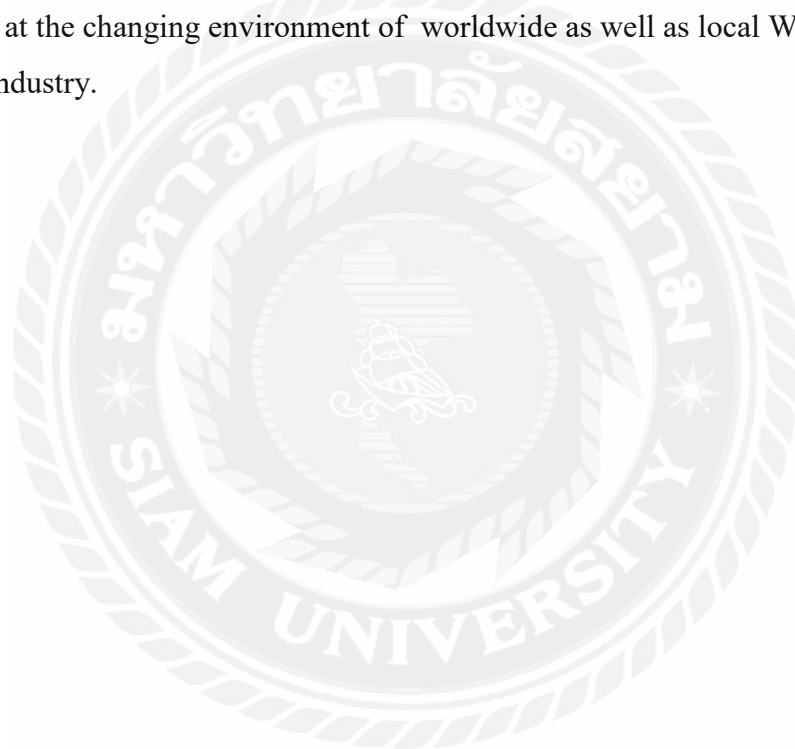
There were several companies which had similar business model and who are targeting same target market that Nepali Paisa Media Pvt. Ltd was targeting. As a result, the company needed to closely analyze how it's major competitors were running their business. I was specifically assigned to have a close watch to all the websites which were considered as competitors. After doing so I was required to to give some recommendation to the company in a form of a report suggesting some of the approach which would help the company adopt pre-existing strategies used by its competitors and create completely new strategies which would help the company better compete with their companies.

- **Creation of Data Analysis report:**

The company being a digital media portal, had tons of raw data relating its target audience and the users who visited the website. I was assigned to conduct data analysis using some of the statistical tools such as Co-Relation Analysis and Regression Analysis and statistical graphs such as Pie charts and Bar charts.

- **Research:**

During my internship tenure I had to conduct research for business development for the company. This research was conducted through the use of internet which covered many aspect of the business such as analysis of competitors. The main purpose of researching activity was to help Nepali Paisa give better service to its users by looking at the changing environment of worldwide as well as local Web-based news media industry.



Chapter 3: Identification of the problems encountered during the internship

Problem 1- Unable to interpret indicators and oscillators used in technical analysis:

Conducting Technical Analysis was a very difficult task. Initially I had a lot of difficulties understanding the indicators and oscillators used (Shown in Appendix 2). These indicators and oscillators were very complicated and complex in nature and difficult to grasp.

Solution: To understand and interpret these indicators and oscillators I needed to study a full fledged report on technical analysis created by Nepali Paisa Media itself and find other secondary resources as a study material. Also, I was personally trained by the General Manager of the company, Mr. Utsav Neupane who had 8 years of experience in trading through the use of Technical Analysis. This helped me to grasp the understanding of the indicators and oscillators.

Example: One of the site I used to grasp the underlying concept to interpret an indicator called *Ichimoku kinko hyo* was <https://www.ichimokutrader.com/>. This site helped to interpret all the signals the indicator gave. For example: when line called *Tankan Sen* crossed line called *Kijun Sen* below an area called *Kumo* It was said to give a strong bearish signal (Ichimokutrader, 2019).

Problem 2: Unable to find the supportive sources for research:

I was required to conduct various of researching duties, however, at times I had a lot of difficulties finding the right resources from the secondary sources. I was confused on where to look for exactly to get the resources I wanted.

Solution: My supervisor, Ms. Rojeena Malakar had several years of experience on this field. Her support and insightful suggestions were vital for me on overcoming this problem.

Example: I needed to collect surveys from different users but was unaware of platform to reach a wider audience to successfully complete it. Ms. Rojeena suggested me to use mailchimp.com, this platform helped me send emails to wider audience which supported me to collected higher number of respondents with less effort.

Problem 3: Unable provide correct interpretation on statistical results

I was required to use various of statistical tools. Some of these tool was hard to grasp its underlying concept. These statistical tools were relating to regression analysis, co-relation analysis and various of others.

Solution: Again, a quick enquiry about the methodology of how these tools were to be used with my supervisor acted as a solution to this problem.

In summary all the problems I faced were technical issues which were solved with further enquiry with my supervisors and research study by myself.



Chapter 4: Contribution and Learning Progress

4.1 Contribution during the internship

Contribution 1: Generating growing consistent users:

The company was not able to generate consistent users on a day-to-day basis, this was one of the major problem it faced. This problem was solved with the data analysis which was conducted by me and my team, which helped the company identify the news, articles and events most influenced the users in the website. Identifying this was vital as it supported the day-to-day user growth of the website by prioritizing the most influential news, events and articles.

Contribution 2: Providing perspective on stock market, stocks and currencies:

One of my integral responsibility at Nepali Paisa was to conduct technical analysis. The report created after the conducting technical analysis was one of the major contribution I made as a data analyst intern at Nepali Paisa. This report was intended to help stakeholders of the company understand and give an opinion on the price and index movement of currencies, stocks and stock market as a whole.

Contribution 3: Providing Perspective on competitors:

I was able to provide my own perspective on the major competitors of Nepali Paisa Media Pvt. Ltd. This will definitely help the company to make effective strategic decisions regarding how to face their competitors. In other words, I was able to point out the strength of the competitors which we can adopt and weakness of theirs which the company can exploit.

Contribution 4: Assistance in day to day operation:

During my internship tenure, I was working with the overall operations department which gave me the opportunity to be a part of day-to-day operations. I was directly involved in helping out all the members of operations department (i.e. Operations coordinator, Data Analyst, Office Assistant and Administrative Assistant) with their daily work which helped them to complete it with better efficiency.

4.2 Details of the related learning process and new knowledge student has received

There were very fruitful learning process and new knowledge I gathered as a Data Analyst Intern at Nepali Paisa Pvt. Ltd; These are listed below:

Learnt Technical Analysis

Learning Technical Analysis was one of the most fulfilling learning outcome I received at Nepali Paisa. Learning this skill helped me to bridge the knowledge I acquired while studying BBA (Finance and Banking) at the college and apply it into a real life scenario. Learning this skill was the most fruitful as I strongly believe that it will be used frequently when I pursue my career in the Finance and Banking Industry.

Enhanced my researching skills

I was able to apply my researching skills that I acquired in my 4th semester (Course: Business Research) and 5th semester (Course: Research in Finance) into a real life scenario. Doing this I learnt how research can help any company to make informed strategic business decision.

Learnt data analysis:

During my internship tenure I was trained to conduct data analysis on the available user data. Doing this I learn using and manipulating data with the help of statistical tools and learnt to interpret the result which would help the company perform better in the near future.

Learnt the functioning of operations department:

Being actively working with both level of management (middle and lower level) of the operations department, I was able to strongly grasp the understanding of how an operations department works in a Financial News Portal. Doing this also made me a better team player and well as enhanced my soft skills.

Enhanced knowledge about the overall Finance and Banking Industry:

While doing the internship at Nepali Paisa, I was needed to read news and article published about new initial public issuance, debentures, public companies and personal finances by both Nepali Paisa and it competitors on a day-to-day basis for the purpose of conducting competitive analysis. Doing this enhanced my knowledge exponentially about the overall Nepal's Finance and Banking Industry.

Chapter 5: Conclusion

After the completion of the Cooperative Education (Internship) at Nepali Paisa Pvt. Ltd I was able to achieve all the the 4 objective of the study. This internship gave me a platform to understand the underlying concept of Technical Analysis, increase personal relation with personnel of Nepal's Finance and Banking Industry, apply theoretical knowledge learnt at college and grasp understanding about how a financial news portal operates and enhanced my research and data analysis skills. I was not only able to achieve all of my primary goals but was also able to enhance my soft skills and was adaptive to a professional working space.

Working in the industry of Finance and Banking requires plentiful of technical skills (i.e. technical software skills, analytical mind and others). This is where I see massive room for betterment even though I was able to successfully able to complete most of my assignment. Furthermore, while assessing myself as a professional I see my strength to be confident, pro active and initiative.

As an up and coming finance professional, working at Nepali Paisa have gave me a perfect platform to demonstrate my overall skills and enhanced it in a massive manner. This internship marks my first step in building my career. Working here, I faced a lot of challenges however, with proper guidance and supervision, I was able to overcome those.

All in all, I consider this internship to be a milestone in my career as working here has provided me solid exposure to professional and corporate world. This internship will definitely help me land a proper employment in the industry of Finance and Banking near in the future.

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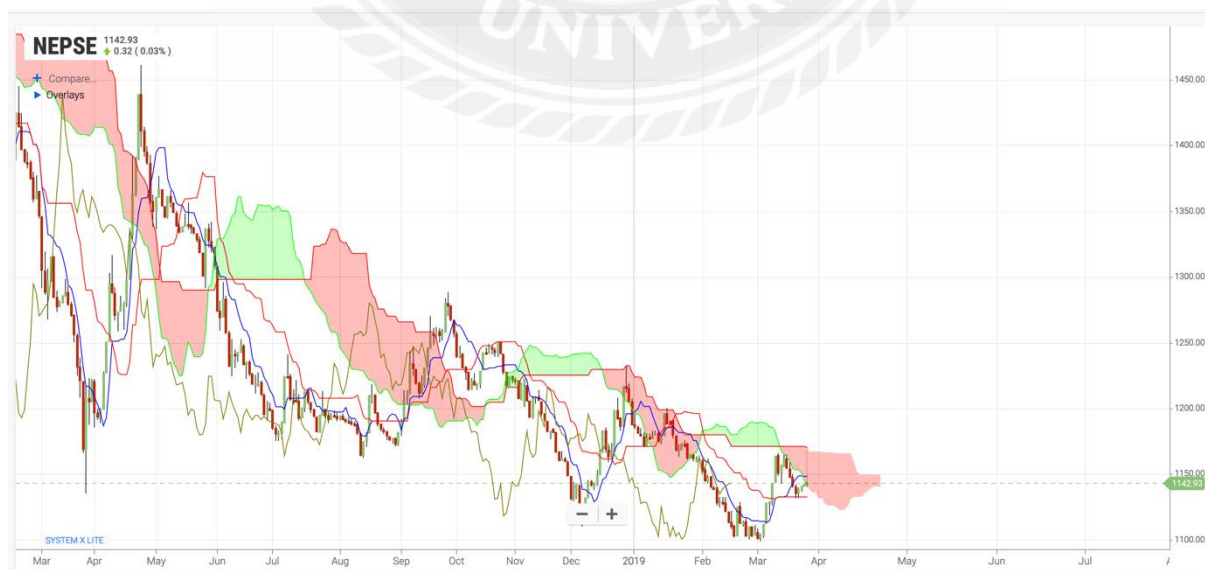


Appendix

Appendix 1: Image of the company's homepage

Appendix 2 Indicators and Oscillators

Ichimoku Kinko Hyo

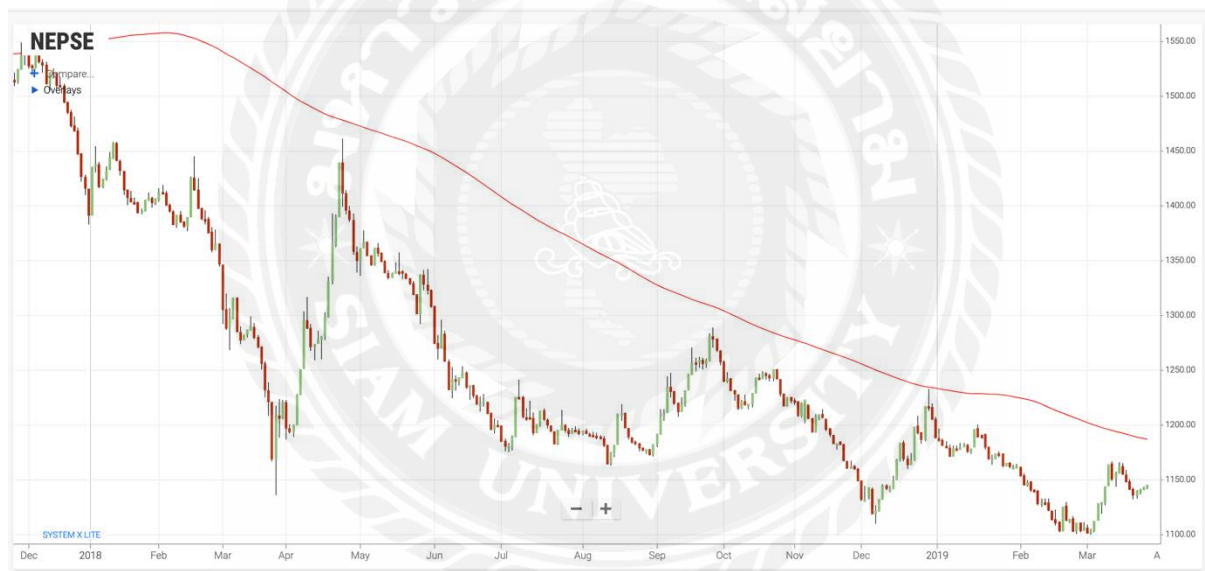


Data Analysis at a Financial News Portal

Support and resistant



200 Days Simple Moving Average



Relative Strength Index



Appendix 3 Pictures of Workplace

Reception



Training Room



News Department



Operations room



Data Analyst Cabin

