

The Outdated Data Organization Paradigm at Tristar Toothbrush Company: Way Forward

The Outdated Data Organization Paradigm at Tristar Toothbrush Company

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Respected faculty,

I am submitting my final year project on “**The Outdated Data Organization Paradigm at Tristar Toothbrush Company**”, which was authorized by you. The project herewith is quantitative descriptive in nature. In the preparation of this project, your guidelines were followed in a close manner.

You’ve provided constant support and guideline to complete this project. I’ve got enough time and support from you. Clearly, it could have been very difficult task without your support. Thank you so much for your dearly and friendly concern.

Sincerely,

Sofia Kamal

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Certification of similarity index

This is to certify that the entire report is original in nature, not plagiarized and the highest standards of academic integrity were kept in mind while writing it. All references have been cited through footnotes: you can also find the bibliography attached.

I personally visited the organization, has meeting with them (twice) and did the survey with sincerity. The CEO of the organization was quite aware about this fact. I had his permission. For any further query he will be there with me. For this reason, I've put his e-mail address and phone number on the reference section.

During the research, I've noticed that there is some project that has been mentioned this company. Those reports helped me to get some information regarding the organization. I've used their links as reference as well.

Declaration of the student

This is to certify that this report is my intellectual property, and was written by me. Every effort was made to make the report remain original and none of the text was plagiarized, while the references were cited.

Acknowledgement

I would like to acknowledge the employees at Tristar Toothbrush Company that agreed to participate in the questionnaires and interviews for this research.

My special thanks to my faculty Ahmed Imran Kabir who helped me with this whole project. Friendly CEO of Tristar Toothbrush Company helped me by providing his permission and access that is related to their organization. Company's active manager who helped me looking for the employees who can provide me sufficient information. I would like to thank all of the employees who participated on the survey. It was quite impossible for me to complete my project without their help.

Abstract/ Executive summary

The paper primarily seeks to highlight the challenges related to the collection and organization of data at the Tristar Toothbrush Company. The paper illustrates that much of the data-collection process at Tristar relies on anachronistic data-collection mechanisms such as physical files, registers etc. It further seeks to suggest some of the remedies that Tristar could inculcate in its data collection process, which would in turn, not only save the time and effort put in by its workers, but also lead to higher turnovers and profits for the company. The foregoing hypothesis would be testified in light of the responses by the Tristar employees to a series of relevant questionnaires and interviews.

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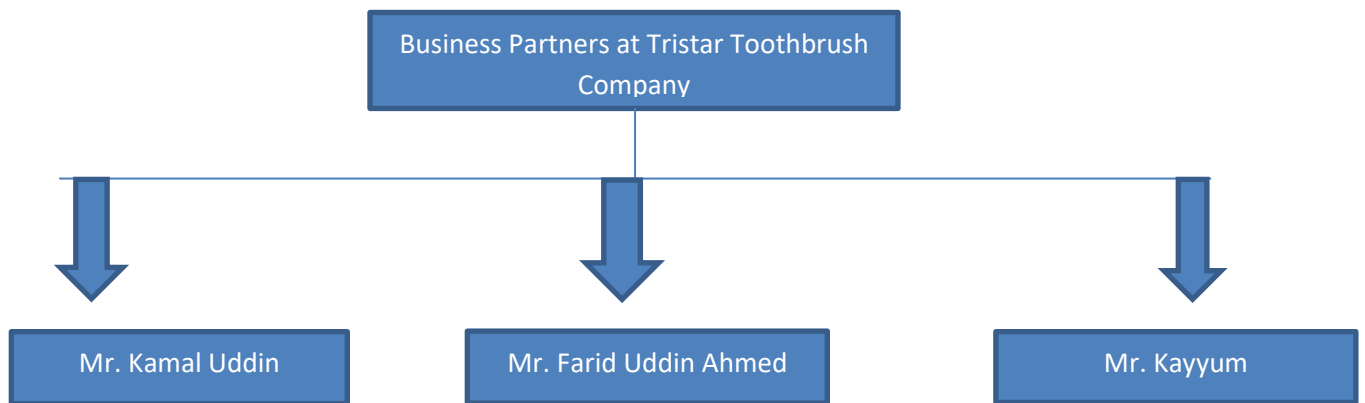
List of Abbreviation

- TK: Bangladeshi Taka
- Etc: etcetera
- I.e.: that is

CHAPTER I: INTRODUCTION

I.1 Background of the study

For this project, the paper seeks to look at a renowned toothbrush company Tri-star Toothbrush & Co, which was established in 1992. The company was established with a meager initial investment of 50 to 6,000,000 TK, with a vision to emerge as a market leader in the toothbrush industry. The company is primarily run by three business-owners, namely Mr. Kamal Uddin, Mr. Farid Uddin Ahmed and Mr. Kayum. Despite some occasional hiccups, the company has continued to perform well over-time and maximize its profit.¹ However, not catching up with the needs of the day with regards to data collection, is a major challenge.



¹ Adnan, Waheduz Jaman. "Comprehensive analysis of Tri-star toothbrush & Co.'s supply chain." (2013).

I.2 Statement of the Problem

Although Tri-star Toothbrush Company was extremely tech-savvy at its onset, it has continued to become outdated given its anachronistic approach with regards to the collection and organization of data. In this paper, I will argue that by improving the overall data-collection and organization methods, Tristar Toothbrush Company would not only be able to save the overall time of its workers, but also assist in decreasing its average costs, and making the company more efficient at large, thus increasing its overall profits.

I.3 Objectives of the Study

This study has the following major objectives:

- Providing a brief glimpse of Tristar Toothbrush Company's overall progress over the years since its inception;
- Determining whether Tristar's data collection and organization mechanisms are outdated or not;
- If so, how the outdatedness of the abovementioned mechanisms impacts the company negatively;
- Ways how better, more technology-based data managing mechanisms could help the company to boost its profits etc;
- Plausible solutions to improve the data- collection and management process at Tristar Toothbrush Company.

I.4 Theoretical Framework and Research Hypotheses

Data-collection and organization is an important, unalienable process for any firm. Without such, no firm can prosper. Most contemporary firms are 'data-driven-organizations', that rely on data collection and analysis etc, as a means to determine the demand and supply tendencies of the market, and increase their profits depending on such. In this project, I hypothesize that the data-collection and organization process at Tristar Toothbrush Company is extremely outdated, which has a negative effect on the overall business situation of the company. By highlighting the various hurdles to the data-collection and data-organisation process, the paper would further seek to highlight some of the key remedial measures that can be taken in this regard, particularly the use of technology and softwares like Microsoft Excel and Quickbooks, etc.

I.5 Motivation of the Study

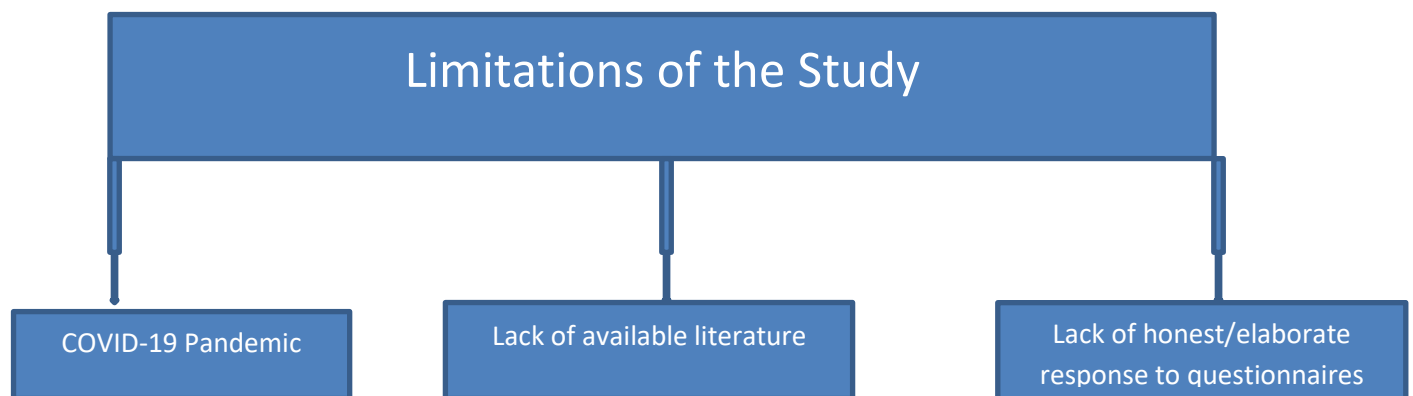
There are various companies across the world that have existed for over decades, and yet, they have realized that their current or future success is reliant only on their ability to catch up with newer forms of technology. However, some firms are seemingly "missing the bus" and failing to earn as much as their newer, more tech-savvy counterparts.² A similar example is that of the Tristar Toothbrush Company. The aforementioned company underwent great progress for several years since its foundation in 1992, becoming one of the most prominent toothbrush brands of Bangladesh. However, unfortunately, although the firm earns a decent net profit of 7 to 800,000 TK per month, its failure to incorporate some of the key technological elements in its data collection and organization methods, is one of the reason why it lags behind some of its competitors like Anchor, Lord, Good Morning, Alpha, Matador etc.³

² Phillips, Patricia Pulliam, and Cathy A. Stawarski. *Data collection: Planning for and collecting all types of data*. Vol. 175. John Wiley & Sons, 2008.

³ Ahmed, Arif. "The Value Chain Analysis of Tri-Star Toothbrush and Co." (2012).

I.6 Scope and limitations of the Study

This study seeks to highlight the various ways how Tristar Toothbrush Company's data collection and organization methods are outdated, and look at the ways how the abovementioned problem affects its position in the toothbrush market, and moreover, look at some of the possible remedial measures in this regard. The major limitation to this study is the relative lack of access to Tristar's workers for interviews or questionnaires due to lockdowns amid the COVID-19 pandemic. As such, the paper would mainly utilize data collected through Google Survey; these questionnaires will be given to the sample workers at Tristar, and their responses would be used to reach conclusions for the purpose of this paper.



I.7 Definition of key terms

- **Private Company:** A corporate entity whose primary aim is to stand out amongst its competitors and maximize profit.
- **Data Collection:** The ways and methods how various types of data is collected in a company.
- **Data Organization:** The various ways by which the collected data is organized in a company.
- **Data Analysis:** The use of present data to analyse the various financial or other circumstances of a company, and to use it for remedies/maximize turnovers.

CHAPTER II: REVIEW OF THE LITERATURE

2.1 Introduction

While there are no major significant research papers or scholarly literature available particularly with regards to the operations of the Tristar Toothbrush Company, apart from some research works by Kashfia Ahmed and MSH Chowdhury, the project relies mainly on individual accounts of workers, general research articles about data collection and organization in corporate entities, etc.

Waheduz Jaman Adnan primarily writes elaborately about the dynamics related to the company's supply chain procedures and explains how the company relies primarily on outdated mechanisms to collect data, as opposed to more modern mechanisms. Similarly, Arif Ahmed also reviews the various dynamics pertaining to the value chain process at Tristar Company. With regards to more modern means of data collection, Patricia Pulliam Phillips' paper "Data collection: Planning for and collecting all types of data" elaborately portrays the various ways modern-day firms use various techniques to collect and organize data, and how these techniques help firms analyze the data so as to improve their overall functioning and returns.

2.2 Industry analysis

2.2.1 Specification of the industry

Toothbrushes are daily-use items, that have a high significance in any market around the world. In the context of Bangladesh, there are five major local toothbrush companies that produce toothbrushes: besides Tristar, there is Alpha Tooth Brush, Matador group, J.K. Enterprise and Good morning.

2.2.2 Size, trend, and maturity of the industry

The toothbrush industry of Bangladesh has been present ever since its foundation in 1971. The Anwar Toothbrush Company (This company has stopped producing toothbrush in 2015) is amongst the oldest of its kind, while the Matador Company and Anchor is the largest toothbrush company by size, and presently, the market-leader of the toothbrush industry is Matador. All the above-mentioned toothbrush companies are direct competitors of the Tristar Toothbrush Company.

2.2.3 External economic factors

With China's expanding market⁴ and increasing exports of daily items to Bangladesh, China, as well as Thailand, Taiwan and Malaysia serve are external competitors for Tristar.

2.2.4 Technological factors

Technology plays a major role in the overall quality and reliability of the product. Companies that have incorporated the latest machinery amongst other technical advances have the greatest market share. An example of this is the Matador Company, that has the latest molding machines as well as the hot channel nozzles, which makes

⁴ Shenkar, Oded. *The Chinese century: The rising Chinese economy and its impact on the global economy, the balance of power, and your job*. Pearson Education, 2006.

their product stand out and allow the company to have over 50 percent share in the toothbrush market.

2.2.5 Barriers to entry

Firstly, brand-name of companies such as Matador Toothbrush Company has a major role to play in discouraging new companies to enter the market. The more the old the company is, the more share it tends to have in the market, hence discouraging newer competitors. Moreover, external factors like Chinese and South-East-Asian imported toothbrushes have a lower price tag, which discourages new companies to achieve the same turnover at the present competitive rates.

2.2.6 Supplier Power

Most of Tristar's products are sold only in Bangladesh; its supplier power is restrained by its competitors like Matador, Chinese imports etc. Moreover, outdated supplying mechanisms of Tristar also restrains its ability to supply its products as effectively as its competitors.

2.2.7 Buyer Power

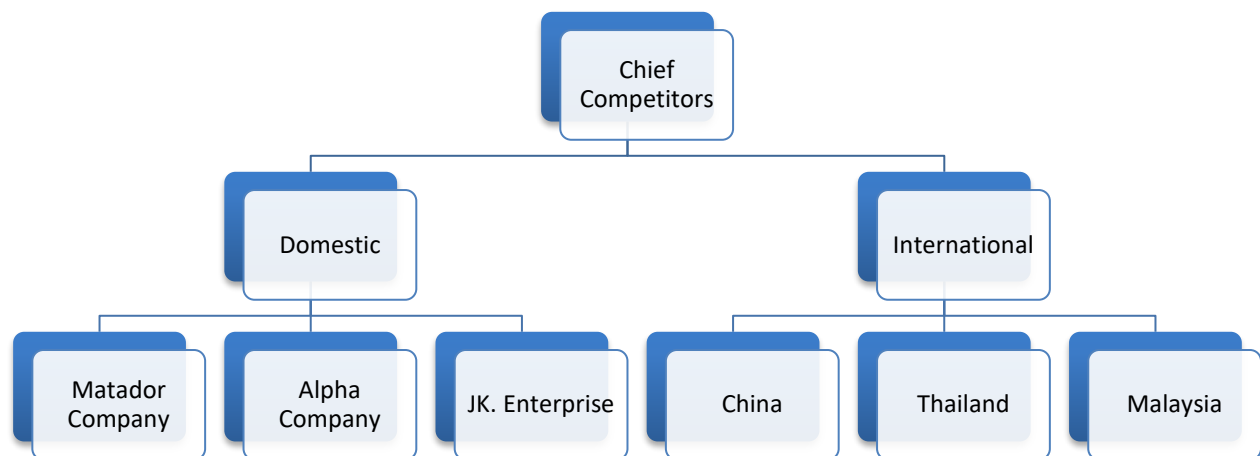
Although Tristar Toothbrush Company's products are reasonably priced at 50 to 60 taka per toothbrush, the buying power of customers is medium since most Chinese toothbrushes cost 10 to 12 taka per toothbrush. Although the Chinese counterparts are generally of lower quality, price-conscious customers tend to buy them instead of Tristar. However, those who prefer quality over price have no choice but to buy Tristar's products.

2.2.8 Threat of Substitutes

Although competitors like Matador, Anwar Company and external ones pose a threat to Tristar, the company has successfully managed to overcome such and continued to exist to date. Though there are some substitute for toothbrush like- mouth wash, floss, tooth powder, flosser and what not.

2.2.9 Industry rivalry

The prime rivals for Tristar Toothbrush company, as mentioned above, are Matador Company, Alpha Company and JK. Enterprise.

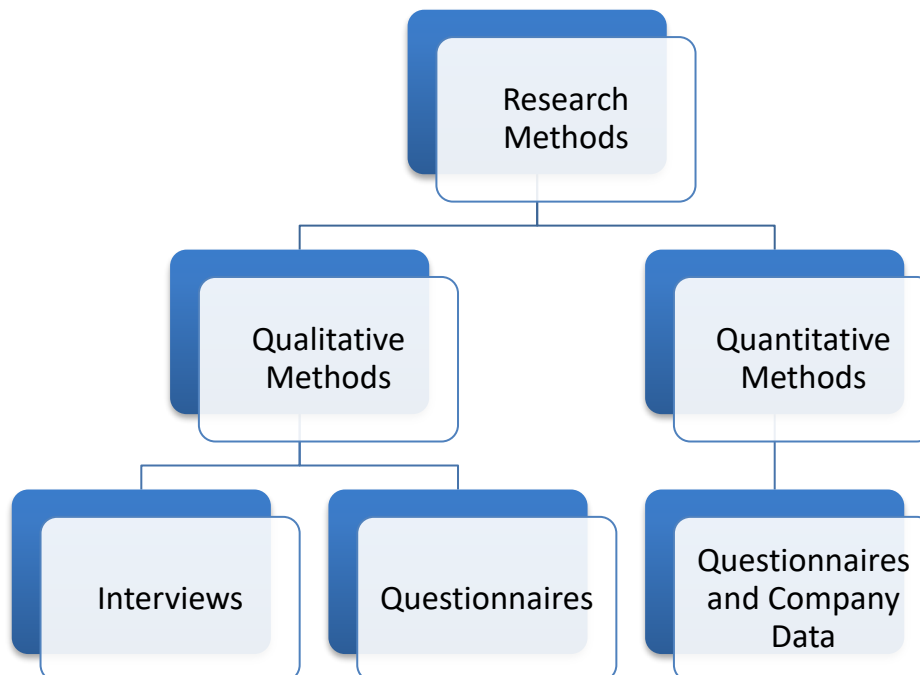


CHAPTER III: RESEARCH METHODS

3.1 Introduction

For the purpose of this project, a range of research methods will be used, which include:

- Quantitative Data (mainly overall turnover and profit of Tristar; statistics related to data collection and organization)
- Qualitative Data (interview and survey of a number of company workers about the data collection and organization at Tristar Toothbrush Company)



3.2 Research Design

Given that my main emphasis is on the Tristar Toothbrush Company, the surveys and other research data would be mainly derived from the company's official records and the company's workers and higher-ups.

3.3 Sample

Tristar Toothbrush Company is a company of around 180 workers, which include both: white-collar and blue-collar workers. The sample of this study includes 3 of the higher officials, and 15 of the lower working staff.

3.4 Questionnaire development

The Questionnaire is designed to be holistic, and to ensure that there is minimal researcher bias involved. Both of the two questionnaires for this study have a mixture of both open-ended questions and closed-ended questions, so as to ensure that the data derived from the questionnaires is highly accurate and assist in testing the hypothesis in a proper manner. The questionnaire as well as the interview have two subtypes. The first questionnaire is aimed at 3 of the managing staff and asks the following questions:

1. What type of data is collected at Tristar Toothbrush Company? Select any one or all of these categories;
2. What method is used for collection of data?
3. Are you aware of the new data-collection techniques used by others in the market?
4. Has your company tried to implement any of these techniques?
5. If so, were you successful in doing so?
6. What is total cost related to data-collection at Tri-Star?
7. Do you think newer data-collection techniques would help you in any way? If so, how?

The second questionnaire is aimed at the second group, i.e. the blue-collar workers at Tristar Toothbrush Company, and asks the following questions:

1. Do you think that the data collection process is good and effective at Tristar Toothbrush Company?
2. Do you think there should be more technology used in data collection process at Tristar?
3. Do you have any ideas about how to improve the data collection process at Tristar?

3.5 Data collection

We primarily tend to collect data through questionnaires as well as interviews; the collected data would then be turned into softcopy format for further analysis.

3.6 Data Analysis plan

I would primarily try to interpret the questionnaires and interviews in order to find out whether my hypothesis, stands true or not.

CHAPTER IV: RESEARCH FINDINGS

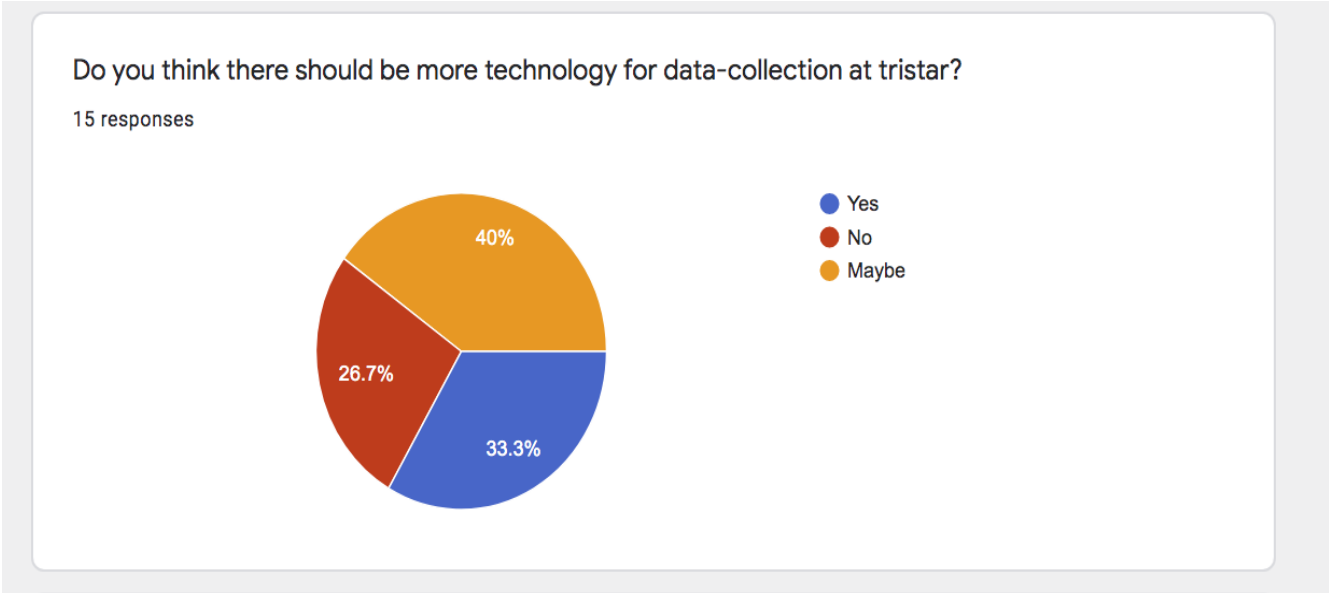
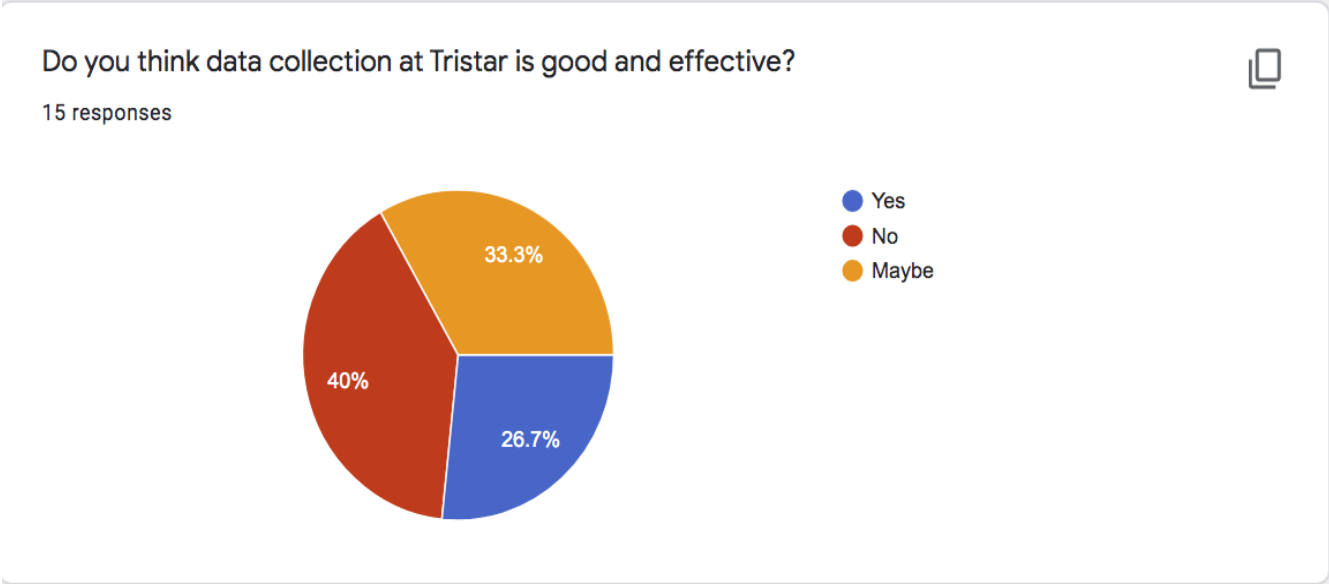
The research findings for this paper include the data collected through questionnaires as well as interviews of managers and employees working at Tristar Toothbrush Company. Our sample for one of the questionnaires included 15 employees working at Tristar, and the other one included three of the highest managing staff at the company.

The findings with regards to the first questionnaire are here with attached in the form of a table:

Question	Respondent 1	Respondent 2	Respondent 3
1. What type of data is collected at Tristar Toothbrush Company?	Invoices, copies of receipts and bank transaction details	Invoices	Previous invoices
2. What method is used for collection of data?	Registers and files	Files	Files
3. Are you aware of the new data-collection techniques	Yes most of the new companies use computers	No	Computers

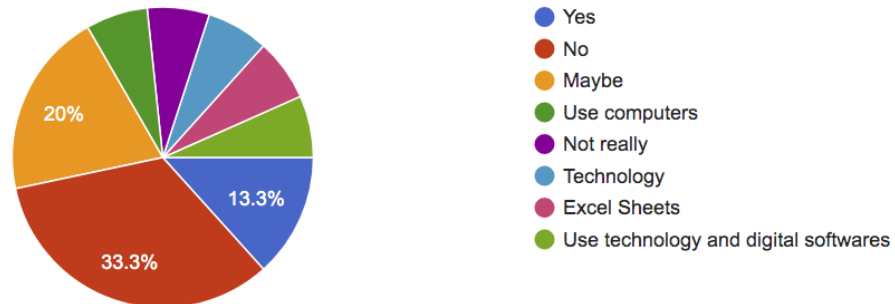
used by others in the market?	and new software to collect data		
4. Has your company tried to implement any of these techniques?	We tried to a few years ago but it is costly and we do not have staff skilled in digital data collection	Yes, but it is costly. We are working fine this way.	I am not sure
5. If so, were you successful in doing so?	As I said, it was costly for the company	No, but we might in the future.	I am not sure but I think it is expensive
6. What is total cost related to data-collection at Tri-Star?	Not much: hardly 1 lakh takas per annum	I don't have exact approximate but not too expensive	Can't say
7. Do you think newer data-collection techniques would help you in any way? If so, how?	Yes it can make our company more advanced and help increase our transactions and know about our faults so that we can improve.	Yes it can improve our business' overall outlook	I cannot say but I think yes, we need to work on it

Another questionnaire was for 15 of the employees working at Tri-star. The results of the questionnaire are as follows:



Any ideas to improve data-collection at tristar?

15 responses



The second questionnaire's findings suggest that 40% of the employees at Tristar suggested that they thought that data collection at tri-star was not good at all effective; only 26.7% of the employees suggested that the data collection was effective, while 33.3% were not sure.

With regards to the second question, and astounding 33% of the employees suggested that TriStar should use more technology in order to collect data, while 26.7% suggested there was no need for such. And 40% of the employees were not sure if technology was required.

The responses to the third question were mixed. 33.3% of the respondents failed to come up with any ideas to improve data collection, while six of the respondents suggested that the use of computers, technology, digital software like excel sheets would improve the data-collection and organization process at Tristar.

CHAPTER V: DISCUSSION

5.1 Conclusions

The research findings, in the shape of questionnaires suggest that most of the employees and workers at Tristar were not convinced that the company had employed new and latest mechanisms to collect and organize data. Most of the workers suggested that the data collection and organization process at Tristar were outdated and anachronistic in nature, as files and registers were still being used in order to collect data such as invoices, banking transactions etc.

The conclusions for this research suggests that given that technology is the primary driving force for most of the businesses in today's world; Tri-Star must also employ similar technology in order to update its data collection and organisation process. By using new technology, in the shape of digital software like Excel sheets, QuickBooks etc. the company could benefit in the shape of grated turnovers and a great ability to analyze its data⁵. Search would allow it to find out where it lags behind, and thus try to mitigate its weaknesses, so that by overcoming such, the company can become more tech-savvy. This would potentially allow it to compete with some of its competitors like Matador Toothbrush Company in a much better way, and thus improve its profits and overall turnovers much more.

5.2 Suggestions for Future Research

Due to the ongoing COVID-19, the research was affected in a sense that we could not conduct interviews of the employees in a proper way as planned. Moreover, with

⁵ Reynolds, Paul, Niels Bosma, Erkkö Autio, Steve Hunt, Natalie De Bono, Isabel Servais, Paloma Lopez-Garcia, and Nancy Chin. "Global entrepreneurship monitor: Data collection design and implementation 1998–2003." *Small business economics* 24, no. 3 (2005): 205-231.

regards to questionnaires, I felt that a lot of respondents did not take the questionnaire seriously, something that can be improved by making questions more objective in nature and/or providing respondents with more options with regards to the answer. Although Google Survey provided us with the opportunity of getting the required data from the respondents, I feel that an absence of COVID-19, physical questionnaires would be a better way of collecting information from the respondents

Reference

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Adnan, Waheduz Jaman. "Comprehensive analysis of Tri-star toothbrush & Co.'s supply chain." (2013).

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