DATA ANALYTICS FOR DHL LOGISTICS FACILITIES

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ABSTRACT

The purpose of this study is identifying the services marketing mix (7Ps-product/service, place, promotion, price, people, processes and physical evidence) decisions of a logistics company. The significance of services marketing mix on creating a logistics services brand has received little attention in the literature. In this paper, the case of a global brand, DHL Logistics is presented. Case study was conducted by using secondary data obtained from DHL.

Logistics' reports and by conducting semiconstructed interviews with DHL Logistics' executives and employees. Due to the reputation and operations of the company, this framework will act as a guideline for the other alike companies. The marketing mix decisions made by DHL Logistics affect both B2B and B2C customers' brand perceptions and enhance the brand equity of DHL Logistics.

INTRODUCTION

Even though the academic researches that focus on traditional marketing mix constitute the majority, in the last decade a stream of researching the topic "services marketing mix" has emerged. Marketing mix tools hold an important place for actualizing marketing and positioning strategies. Traditional marketing mix, 4Ps, is made up of four components namely product, place, promotion, and price, constitute the marketing mix (Borden, 1953; McCarthy, 1964; Aghaei et al., 2013). In 1995, Rafiq and Ahmed extended the concept of 4Ps to 7Ps, namely product, place, promotion, price, physical evidence, processes and people, for services industry. Marketing tools and strategies of firms are being shaped in accordance with their positioning decisions. Hence, management of a firm's decisions on components of marketing mix occupy an important place for actualizing positioning purposes. Positioning covers decisions and activities intended to create a concept of the firms' product in the minds of customers (FerreIl, 1997). Lamb, Daniel, and McDaniel (2004) explain positioning as a process of developing a marketing mix in order to influence customers' perception of a product line, brand or organization in general. Marketing strategies hold an important place for logistics service providers since logistics firms play a vital for companies in gaining competitive advantage and cost efficiency, risk-sharing, freeing up resources, and accessing to resources that are not available at one's own organization (Green et al., 2008). However, there exists numerous logistics companies offering similar services. Additionally, according to Porter's five forces of competition framework, logistics companies are in a disadvantageous position since the industry contains high threat of entry, high intensity of rivalry, medium

level of substitution risk, medium to high level of bargaining power of buyers and medium level of bargaining power of suppliers (Manatayev, 2004). Hence, for logistics service providers, marketing efforts have a significant influence on changing their disadvantageous position into a more advantageous position. In this paper, the marketing efforts of DHL Logistics, an important player in the industry, are being analysed.
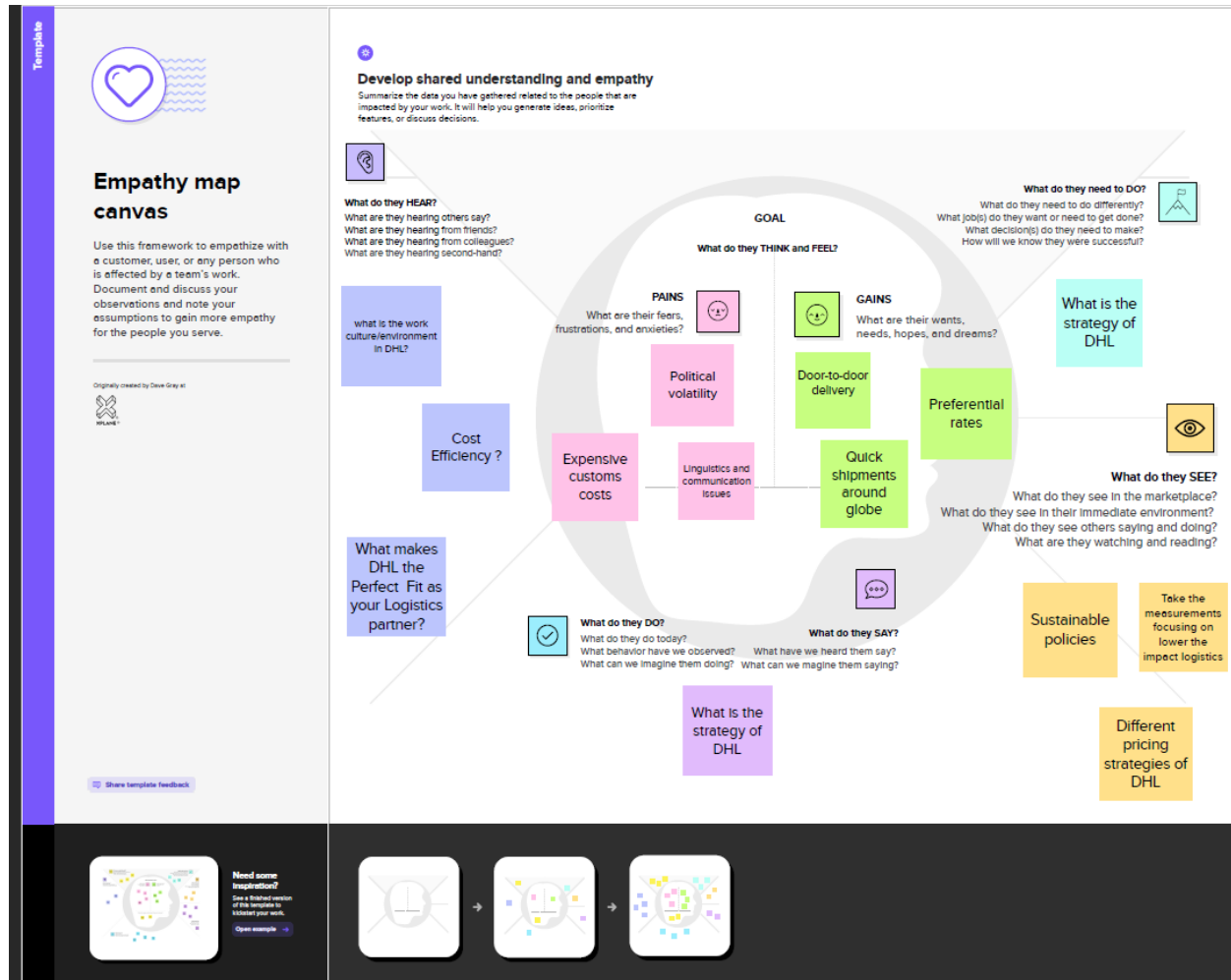
LITERATURE SURVEY

1. Aghaei, J., Niknam, T., Azizipanah-Abarghooee, R., & Arroyo, J. M. (2013). Scenario-based dynamic economic emission dispatch considering load and wind power uncertainties. International Journal of Electrical Power & Energy Systems, 47, 351-367.

2. Borden, N. (1965). The concept of the marketing mix. In G. Schwartz (Ed.), Science in marketing (pp. 386- 397). New York, NY: John Wiley & Sons.

3. Ferrell, J. (1997). Criminological verstehen: Inside the immediacy of crime. Justice Quarterly, 14(1), 3-23.

4. Goi, C., L. (2009). A review of marketing mix: 4ps or more? International Journal of Marketing Studies, 1(1). Retrieved from: http://www.ccsenet.org/journal/index.php/ijms/article/viewFile/97/1552%3Forigin%3Dp ublicationdetail

5. Gummesson, E. (2007). Exit services marketing-enter service marketing. Journal of Customer Behaviour, 6(2), 113-141. Manatayev, Y. Y. (2004). Commoditization of the third-party logistics industry (Master´s Thesis, Massachusetts Institute of Technology).

6.Retrievedfrom: http://18.7.29.232/bitstream/handle/1721.1/28508/57341050.pdf?sequence=1

7. McCarthy, E. J. (1964). Basic marketing: A managerial approach (2nd ed.). Homewood, IL: Richard D. Irwin.

8. Rafiq, M., and Ahmed, P.K. (1995). Using the 7ps as a generic marketing mix: An exploratory survey of UK and European marketing academics.

9. Marketing Intelligence and Planning, 13(9), 4-15.

10.Yelkur, R. (2000). Customer satisfaction and the services marketing mix. Journal of Professional Services Marketing, 2(1).

IDEATION AND PROPOSED SOLUTION

EMPATHY MAP

IDEATION&BRAINSTORMING

PROPOSED SOLUTION

Problem Statement (problem to be solved)

The biggest problems in the logistics industry come from its inconsistency and fragmentation. Since there are many parties involved (manufacturers, storekeepers, drivers, managers, and end users) it's impossible to have centralised control over every step of the way

Idea / Solution description

Idea management software structures the process of gathering and developing ideas around business focus areas, including product development, day-to-day processes, customer feedback, market trends, and competitive insights, with the goal of organizing and managing those ideas for improvement or development.

Novelty / Uniqueness

As a Thought leader in the logistics industry, DHL structurally invests in trend research and solution development. The nature of the workplace, work culture, and workforce are evolving

Business Model (Revenue Model)

A business model helps a business to build its business by analyzing what they are going to sell and how are they going to promote it. It also helps it analyze what are the expenses it is going to incur and how is it going to make a profit.

Scalability of the Solution

A Scalable solution allowing for changing demands&service requirements.Whatever your company's shape size,you will gain.

Social Impact / Customer Satisfaction

Marketing is the delivery of customer satisfaction at a profit this study identifies Customer

Relationship Management CRM. the

importance of an excellent customer experience cannot be understated.

PROBLEM SOLUTION FIT

- Solve complex problems in a way that fits the state of your customers.
- Succeed faster and increase your solution adoption by tapping into existing mediums and channels of behaviour.
- Sharpen your communication and marketing strategy with the right triggers and messaging.
- Increase touch-points with your company by finding the right problem-behaviour fit and building trust by solving frequent annoyances, or urgent or costly problems.
- Understand the existing situation in order to improve it for your target group.

Define CS, fit into CC	**1. CUSTOMER SEGMENT(S)** `CS` Client analytics is the act of gathering information from various sources and combining it to form a comprehensive picture of the customer. This data may contain details about client demographics, past purchases, and website usage.	**6. CUSTOMER** `CC` Teams that are not aligned, lack commitment and show little patience complexity and prejudice	**5. AVAILABLE SOLUTIONS** `AS` Usage of Big Data Analytics	Explore AS, differentiate
Focus on J&P, tap into BE, understand RC	**2. JOBS-TO-BE-DONE / PROBLEMS** `J&P` Within a company, there is a lack of coordination between various teams or departments, which is not beneficial in the near term.	**9. PROBLEM ROOT CAUSE** `RC` There are several issues facing the logistics sector today, particularly with the integration of e-commerce and new data sources like cell phones and sensors. GPS and other gadgets	**7. BEHAVIOUR** `BE` An analysis of the most recent big data analytics applications in the logistics and transportation industries.	Focus on J&P, tap into BE, understand RC
	3. TRIGGERS `TR` Monitoring 24/7 , User friendly interface **4. EMOTIONS: BEFORE / AFTER** `EM` **Before**: Keeping track of records for commodities is difficult. **After**: Now, businesses may predict busy and sluggish times. future supply shortages that may occur and take appropriate action	**10. YOUR SOLUTION** `SL` Regarding the way in which organizations now use their analytics Now, businesses may predict sluggish and busy times as well as anticipated supply shortages in the future.	**8. CHANNELS OF BEHAVIOUR** `C` Along with a growth in data volume, data processing technologies will also become more powerful.	

REQUIREMENT ANALYSIS

Functional Requirements:

| Functional Requirements:	Sub Requirement
User Registration	Registration through any google account or social media accounts
User Confirmation	Confirmation via Email Confirmation via OTP
Dataset	The DHL_Facilities.csv record are collected as a dataset and upload to Cognos analytics
Prepare/Analyse	The dataset is moved around to prepare and analyse using Cognos
Exploration	The data are explored using logistics dataset by Cognos
Dashboard	The Prepared and Explored data are Visualize and created in different type of dashboards. i.e., charts, graphs, tree, reports, summary, etc..

Non- Functional Requirement

| Non- Functional Requirement	Description
Usability	No prior experience required to use the dashboard.people with the basic understanding can use the system
security	Only register user can use this application
Reliability	The analytics system ensures the reliability
performance	Gets updated to improve the performance of the application
Availability	The availability of the dataset must be constrained for acurate data
Scalability	Any kind of data can be explored and the system is quiet expandable

USER STORIES

Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	8	High	Mirdhula B Harshavardhini S
	USN-2	As a user, I will receive confirmation email once I have registered for the application	8	High	Adarsh G Ifrath Jahan
	USN-3	As a user, I can register for the application through Facebook	2	Low	Mirdhula B Adarsh G
	USN-4	As a user, I can register for the application through Gmail	8	High	Harshavardhini S Adarsh G
Login	USN-5	As a user, I can log into the application by entering email & password	10	High	Harshavardhini S Ifrath Jahan
Dashboard	USN-6	As a user, I can view City Wise DHL Deliveries of the given dataset	8	Medium	Adarsh G Harshavardhini S
	USN-7	As a user, I can view Top N Deliveries State and City of the given dataset	10	Medium	Mirdhula B Ifrath Jahan

PROJECT DESIGN

DATAFLOW DIAGRAM
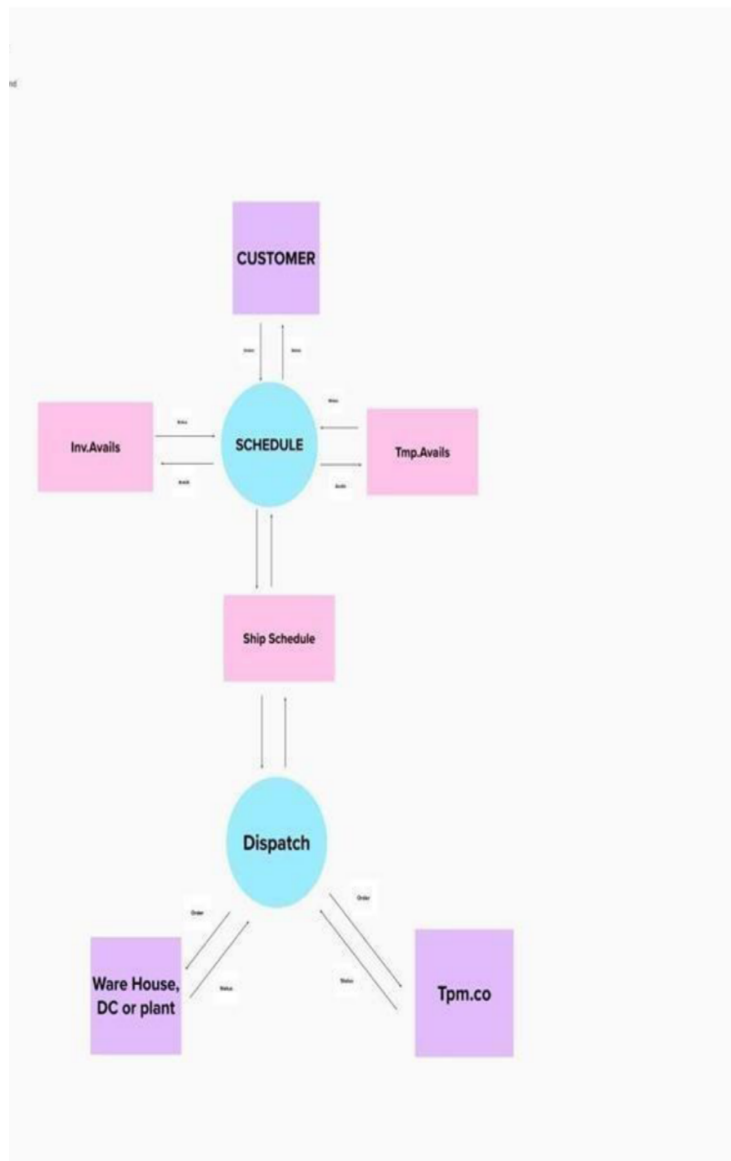
TECHNICAL ARCHITECTURE
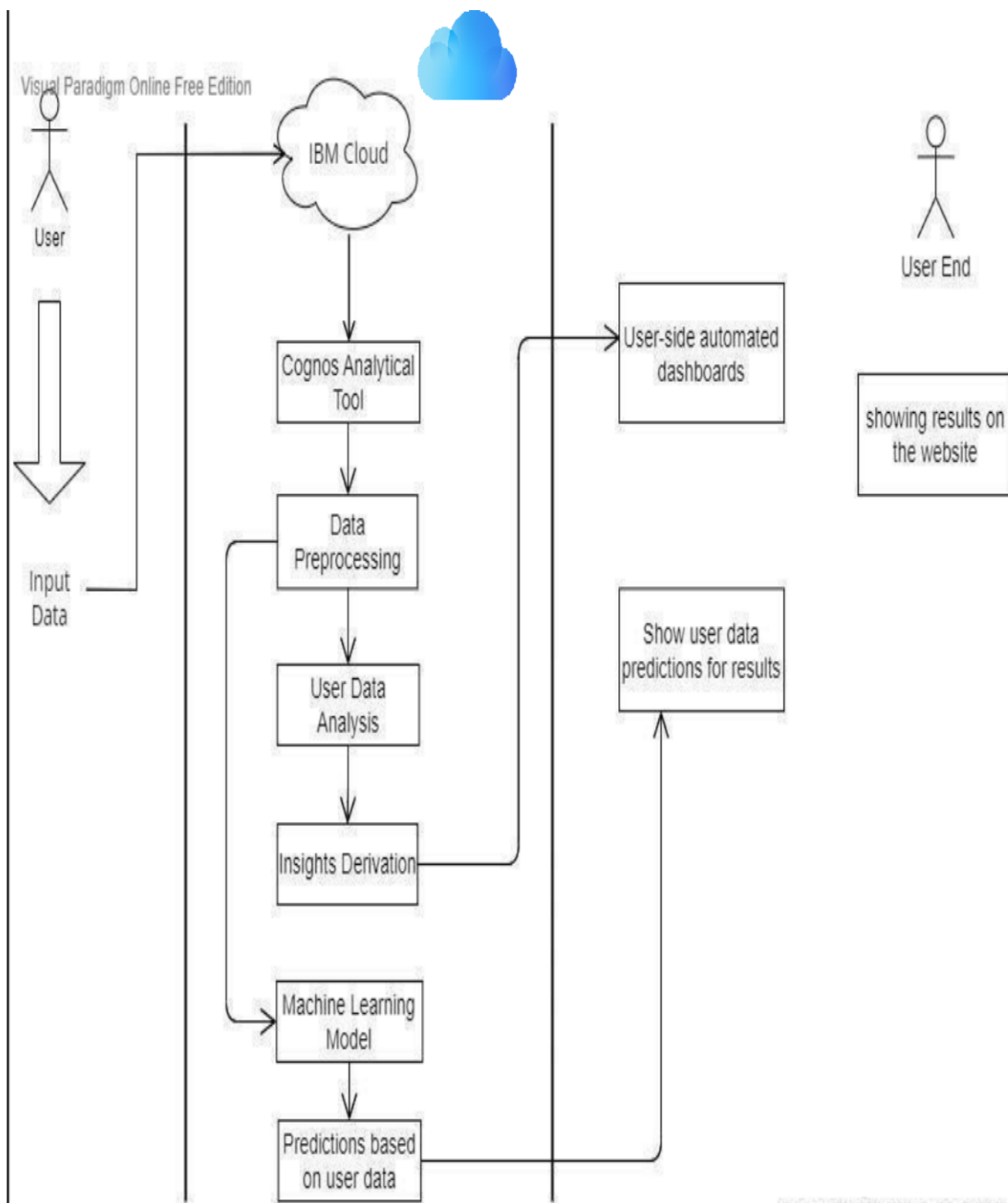
PROJECT PLANNING&SCHEDULING

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	20	6 Days	24 Oct 2022	29 Oct 2022	20	07 November 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	20	09 November 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	20	12 November 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	20	19 November 2022

CONCLUSION

The services marketing mix has an incontrovertible importance for creating a mental picture of intangible products, in other words services. In a similar vein, when logistics sector's disadvantageous position in Porter's Fice Forces of Competition Model is considered, it is ought to emphasize the importance of positioning decisions and marketing mix efforts for logistics service providers. Due to the reputation and global operations of Deutsche Post DHL, the developed framework in this paper will act as a guideline for the other alike companies. For further research, customer side can also be considered and customer satisfaction can be measured via surveys.