Integration of Business Intelligence and Analytics suite project specification for CollarFolk

Komal Vijay Bhalerao MSc Data Analytics National College of Ireland Dublin, Ireland x20135386@student.ncirl.ie	Rohan Narayan Koli MSc Data Analytics National College of Ireland Dublin, Ireland x19224842@student.ncirl.ie
Ananya Pratap Singh Chandel MSc Data Analytics National College of Ireland Dublin, Ireland x19237529@student.ncirl.ie	Himanshu Rathee MSc Data Analytics National College of Ireland Dublin, Ireland x20132689@student.ncirl.ie

School of computing

Supervisor**: Vikas Sahni**

Abstract—**This project report aims to specify the requirements of CollarFolk, a budding startup in the hospitality business. A complete solution to increase customer satisfaction and simply operations of the company which can lead to more revenue generation is specified.**

Index Terms—**CRM,PowerBI,TAC,ERP**

I. COLLARFOLK (PET-FRIENDLY HOLIDAYS)

A. About the Company

CollarFolk is a small startup in hospitality segment with speciality in providing pet friendly holidays. It has a website where in around 500 properties across India are listed to be booked by anyone with a pet and scratching their head to find a suitable place for themselves and their pet. Due to the rates and the marketplace of pet industry their clientele is niche.

B. Requirements of the Company

CollarFolk has an employee strength of 10 wherein 3-4 employees are working on operations and finding it difficult to perform their daily tasks as they have enormous number of leads to manage. Currently they are managing their workload on Microsoft Excel where for each requirement of the customer they need to modify entries in their Excel sheets. It is indeed tiresome and confusing to manage leads without proper documentation of the details and often employees forget to send timely proposals. Assignment of leads and tracking the revenue generated is also an issue within this organisation as the inter team operations are cumbersome.

Moreover, timely review of the revenues and employees performances is hectic and often the management is dependent on tracing data and then manipulating it with Excel for visualization of reports.

Fig 1 represents the operations of CollarFolk and the loopholes where the employees forget to take follow ups or pass the appropriate information to the customers. It is also difficult to track the response time of an employee which leads to customer dissatisfaction in some instances.
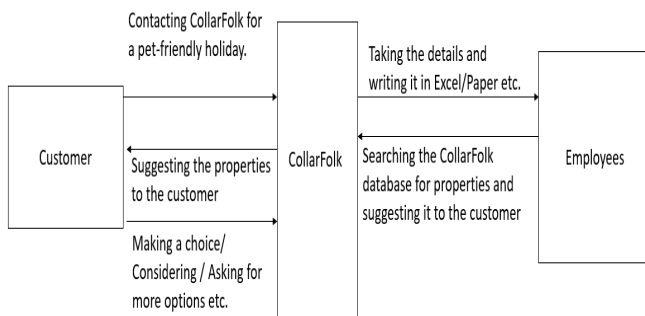

Fig. 1. Current Scenario in CollarFolk

C. Proposed Solution

The objective of the company as per its requirements was to minimize the errors from the employees with greater customer satisfaction. Proper documentation to check the response time and store every detail of the customer was of utmost importance. For this we proposed Dynamic 365 Sales CRM. Also, visualising the data to review performances and find the areas to concentrate more on revenue and company's growth was another solution to the stagnant company's performance for which we recommended Power BI.

II. BALANCED SCORECARD

A Balance Scorecard is a tool that strategizes a business plan taking into consideration four basic perspectives namely financial, customer, internal processes and finally learning and growth. Each of the four perspectives are defined by measures and initiatives that should be undertaken which are in harmony with the organizational goals and strategy.

By assessing the company model of "Collarfolk" we came up a balanced scorecard as in Fig 2. In the financial perspective, the prime objective is to increase profits to the shareholders. The second objective is to reduce costs which would ultimately help elevate profits. In the customers perspective, customer base expansion is the main objective which can be implemented by reaching out to a greater number of customers via email or cold calling. By doing a thorough market research and analysing market players, a competitive product pricing can be established. By implementing Microsoft Dynamic 365 Sales, we can incorporate most of the objectives.

In the perspective of Internal, developing relationships and incorporating new vendors with a better travel agent commission (TAC) can enhance the business. Along with vendor acquisition, providing a better customer experience with a periodic follow-up and analysing customer reviews should be considered. Thirdly, improving employee satisfaction by providing incentives and appreciation to a better performing employee. Lastly, in learning and development perspective, employees need to be trained on skill-sets such as handling excel sheets and Dynamic 365. Employees need to be trained on working in collaboration against a common strategy of the company.

Fig. 2. Balanced Scorecard of CollarFolk

III. SYSTEM DESIGN

After considering the Balanced Scorecard and other factors a solution was provided to CollarFolk. The management of incoming leads was proposed to be managed by Dynamic 365 Sales in which one can enter all the details of the customers as well as the properties/products suggested to them. Also, PowerBI was used to provide performance analysis and quick evaluation techniques so that new strategies can be implemented at the earliest. The specifications of both the solutions provided is as below:

A. Dynamic 365 Sales

Dynamics 365 is a software accessible as a cloud based service. This combines the functionality of Customer relationship management(CRM) and Enterprise Resource planning(ERP). It provides added functionalities to the traditional sales teams to adapt to the rapid changes in the business, customer requirements and active competitors. We would be implementing it for an end-to-end buyer journey transformation by combining and managing sales and service data. Generating leads based on their requirements, qualifying leads providing them with suitable proposals and product suggestions, identifying active competitors and assigning Sales team representative for tracking and follow-up for efficient lead conversion.
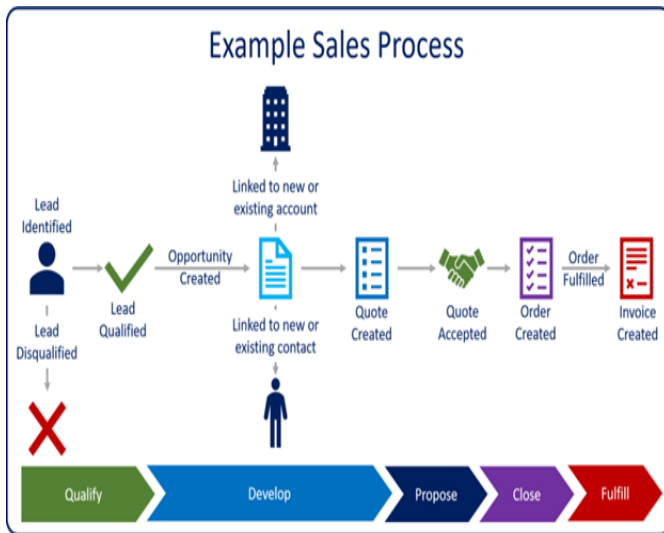

Fig. 3. Basic functionality of Dynamic 365 Sales [1]

Studying the dynamic 365 sales and the requirements of CollarFolk the following process flow was implemented:
PROCESS FLOW:

1) Customer Call/Email : The customer will mail or call on seeing the website or advertisement form marketing campaign stating their requirement or enquiry.
2) Lead Generation : On receiving the enquiry and the information from the customer a Lead is generated.
3) Lead Validation : A lead is validated in terms of their requirement and budget. If they align with the product and services that are offered by us they are later assigned to Sales team representative. They can be potential customers.
4) Sales team : The sales team follows up with the Leads and offer them quotes and proposals and try to nurture them as potential customers
5) Proposed solution : After the Lead assessment is done by the sales team. They offer a proposed solution to the lead giving them options of the products available according to their requirement and also offer them discounts that might be applicable.
6) Consideration/Follow up : In this phase the lead or the customer considers the proposal and makes a decision to avail the service or buy the product. The sales team follows up with the customer at this point a lead may be won or lost depending on their confirmation.
7) Lead Conversion : Once the Lead accepts the proposal and finalizes the decision on availing the service or product a lead is converted and closed as won. This leads to revenue generation for our company.
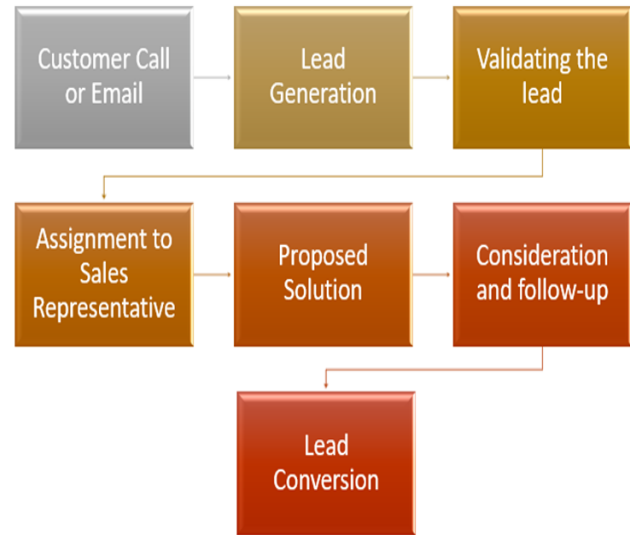

Fig. 4. Process flow diagram for CollarFolk

B. Power-BI

Power Bi is an integrated collection of applications, software services and different connectors. Power Bi collects all the unrelated sources of data into a well organised structure to create interactive visuals to provide company or an organisation with all the important insights to work on for the enhancement and better success for each aspect of the organisation.

Power Bi in this project is used to visualise various aspects such as Sales, revenues and profits of the company CollarFolk. The Dashboards created using Power Bi can give effective visualisations and insights for the company to improve more.
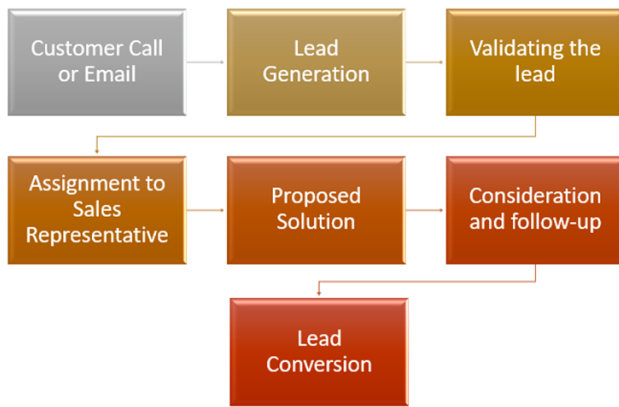
Fig. 5. Process flow diagram for CollarFolk

C. ENTITY RELATIONSHIP DIAGRAM

The raw data acquired from "Collarfolk" as worksheet was cleaned and organised into 6 different worksheets. The worksheets were split according to different verticals namely, Customer database, Vendor database (Hotel and Transport data), Sales database (Hotel and Transport data) and finally Employee database.
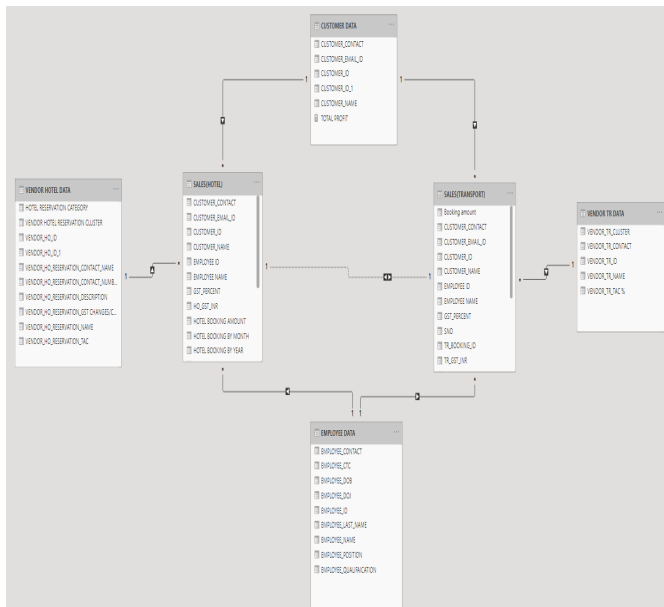

Fig. 6. ER Diagram

DATA DICTIONARY: The dashboard is linked to the below-mentioned databases.

1) The Sales (Hotel) worksheet is linked to three unique entities VENDOR_HO_ID, EMPLOYEE_ID and CUSTOMER_ID.
2) The Sales (Transport) worksheet is linked to three unique entities VENDOR_TR_ID, EMPLOYEE_ID and CUSTOMER_ID.

3) VENDOR_HO_ID and VENDOR_TR_ID: This entity links and fetches the vendor information using the unique id such as vendor TAC, vendor hotel contact information, vendor cluster for vendors under hotels and vendors under transport segment.
4) EMPLOYEE_ID: This entity fetches the employees that were assigned to customers. This unique entity is under the Employee database which has information of all the employees namely, employee position, employee cost to the company and employee qualification.
5) CUSTOMER_ID: This is an important entity which is under the customer database. This entity uniquely identifies customers according to their contact information. This entity is useful in tracking and following up with customers. Also, it helps identify repeat customers.

REFERENCES

[1] 2020. [Online]. Available: https://www.simplicitypoint.com/2019/04/28/overview-of-dynamics-365-for-sales/