ISY CASE STUDY ASSIGNMENT

Executive summary

Henry's Organics is one of the frontline farms that produces organic fruits and vegetables, however, the farm has faced challenges related to marketing, customer service and product delivery. A system analyst has been appointed to look after the organizational structure and practices that essentially hints the traditional customer service as a major problem. Introduction of information systems can essentially address the challenges and bring a radical change in the product order process. Several activities with an effective time frame have been allocated for this project to prepare a system development report.

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Activity 1

1. Henry's Organics produce organically certified honey, eggs, vegetables, nuts and fruits that follows permaculture principles and biodynamic soils. Henry prefers to produce vegetables and fruits rather than eggs and milk however he has cows and chicken as a source of milk and eggs. The concerned company grows organic products without pesticides and artificial fertilizer and uses companion practices to protect crops from insect attacks. Moreover, the owner sells all the products directly to the customer who approaches him. Henry looks after the production while his sister Betty deals with customers by confirming their orders and payments.

2.

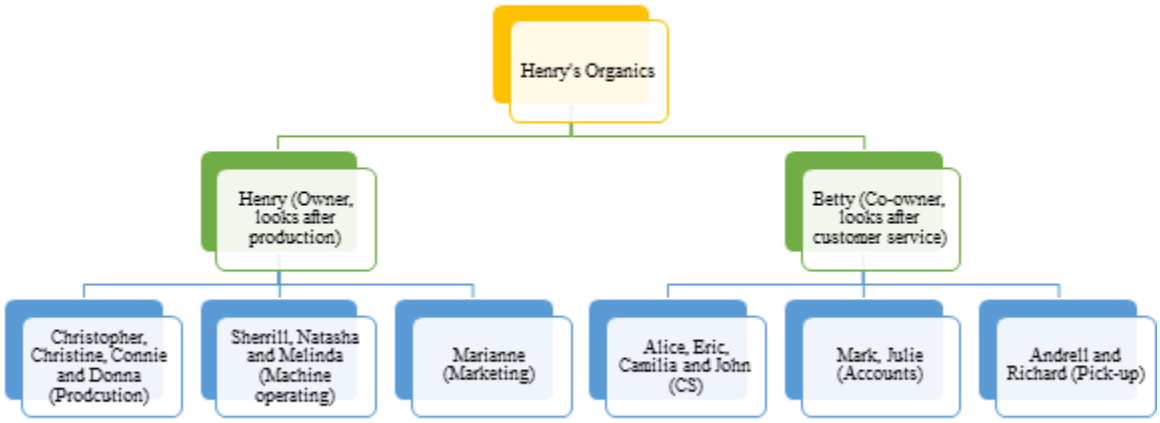

Figure 1: Organisational chart of Henry's Organics

(Source: Case study)

Henry's organics is operated by Henry who is owner and his sister Betty who assists Henry with monitoring the farm. Having knowledge on horticulture Henry looks after the production section while Betty being skilled in finance and accountancy takes care of the consumer segment. Betty deals with the product order to the payment procedure and doing so she has recruited Alice, Eric, Camalia and Jon in customer service. In addition, Mark and Julie have been recruited in accounts while Andrel and Richard take care of product delivery, all of them reporting to Betty directly. On the other hand, Henry has appointed Christopher, Connie, Donna and Christine in production and

Marianne in marketing. Sherrill, Natasha and Melinda take care of machines operating with each of them reporting to Henry.

3. Customer service and order taking process has been one of the major concerns for Henry's Organics that are to be considered for the new information system. Henry uses pen and paper to note down the orders from customers over the phone which wastes a lot of time for customers and as well as for Henry. In addition, orders are misplaced sometimes which causes chaos as well. Moreover, issues related to product delivery have also been noticed in Henry's Organics where many customers at a time arrive at the pick-up points causing traffic jams in the street. In addition, customers often pick-up the wrong product box from a bunch of boxes, which further creates discrepancies in the delivery process. Need for effective customer delivery can be seen in this matter to resolve the pick-up issue and thus introduction of a new information system is being planned by the organisation. As opined by Johnson and White (2020), information system allows an organization to monitor rate of production, measure its efficiency by tracking customer feedback along with recording number of orders and validate them with the sales record.

Integration of information systems helps the organisation to keep a track of all its operational activities and document them for business functions. Customer service, book orders, delivery, customer details and collection emerged as major business functional areas for Henry's Organics that are to be controlled by a new information system.

Activity 2

1. Customer service emerged to be moist haphazard for Henry's Organics as the company still uses the traditional process of manually recording the customer orders. As stated by Harron *et al.* (2017), manual data depends on the human cognitive abilities and thus it often fails in recording the authentic information. Manual data gathering while in an emergency can miss out on registering appropriate information. In relation to the case study, it is seen that Henry often fails to register customer details accurately while noting down the order details that causes confusion at the product delivery time. Therefore, by integrating the information system the company aims to fulfil the customer satisfaction aspect. In addition, introduction of information systems can further track the organic certification process in an efficient manner. As opined by Hannay *et al.* (2017), the information system allows organisations to enhance its existing communication capabilities that includes negotiations and customer interaction. Concerning this case study,

customer details such as phone number and address essentially allow Henry's Organics to approach them directly, take feedback and review the product quality as a part of this project.

2. Along with customer service and product delivery issues regarding payment process and operating transportation have been noticed in Henry's Organics. Moreover, using pen and paper to take customer orders often caused mismanagement in taking orders and preparing the collection list. According to Tsvetkov (2017), systematic information documentation makes the operational process smooth by acquiring customer details and product related information that includes cost and delivery timetables. Therefore, collection list, customer contacts, order details and marketing planning emerged as primary requirements for the new system information in this regard. As stated by Machera and Machera (2017), a computerized system with documenting all the relevant data helps businesses to review customer orders and even calculate the costs. Therefore, identify, plan, monitor, analysis, design, implement and testing emerged as key requirements for the new information system in this regard.

Figure 2: System vision documents

(Source: Machera and Machera, 2017)

In addition, the system information integrates problem solving skills to develop the network chain and provide solutions to existing issues. Relating this aspect with the case study, customer phone number, address, order details, payment method and nearest pick-up point appear to be key information required in new system information. Apart from that, introducing a web page to place

the orders can be an effective method to avoid any discrepancies while booking customer orders. A web page consists of on-screen web forms to fill and confirm orders along with facilities to select orders from a list of products that can essentially improve the process for Henry's Organics. This in turn can also allow the farm to review and update its product list in their official web page, which certainly emerged as the main scope of this proposed system information.

Activity 3

1.

Tasks	Duration (Total of 19 days)
Meeting farm staff	2 days
Staff interviews	5 days
Review farm records, customer purchases, cost and profits	2 days
Observing business operations	2 days
Customer interview	1 day
Analyse accounting process	2 days
Studying order samples and payment transaction	2 days
Field work	2 days
Preparing the report	1 day

Table 1: Task lists

(Source: Self-developed)

2. Meeting staff of the concerned organisation appears to be the first priority to complete the report. After meeting customer service staff, accounts department, horticulturist and machinery experts detailed information related to production, delivery and transportation needs to be noted. After that staff interviews will be conducted which is essential to access the farm records related customer contacts, cost, profit details and business operations. As opined by Koi-Akrofi *et al.* (2019), sequential completion of tasks significantly correlates the activities and helps bring a discipline in project management. Completing the predecessor task allows the next task to be accomplished independently. In reaction to the case study, meeting farm staff can allow the system analyst to communicate with them and ask for crucial details related to accounts, cost and profit and operational details.

Once the relevant information is gathered, the concerned system analyst can move to the next task which is reviewing the farm records of purchase details, customer information and detailed insights on business operations followed by the next step which is “observing the operation process”. As opined by Dwane *et al.* (2021), predecessor tasks bring significant insights for the upcoming tasks and help it to complete in an efficient manner. Dependencies can be identified through the interlinkage of the tasks and the impacts on project timeline. In the concerned project staff interviews and access to official documents are interrelated while a 5 days’ staff information session is followed by 2 days’ review of farm products and financial details. Effective communication during the interview can essentially smoothen the process of rest of the activities such as observing operations, getting customer details and conducting customer interviews.

Once the customer interview is done the concerned analysts can switch to the next step which is analyzing the accounts. According to Mirhosseini and Parnin (2017), the relationship between professor and successor essentially determines the project plan implementation and thus it is necessary for the project manager to identify predecessor and develop project plan accordingly. Concerning this project, meeting farm staff can be identified as the predecessor task which is followed by staff interviews to prepare the report in a sequential order.

3.

Name	Duration	Start	Finish	Predecessors
Meeting staffs	2 days	8/6/21 8:00 AM	8/9/21 5:00 PM	
Staff interview	5 days	8/10/21 8:00 AM	8/16/21 5:00 PM	1
Review records	2 days	8/17/21 8:00 AM	8/18/21 5:00 PM	2
Observe operations	2 days	8/19/21 8:00 AM	8/20/21 5:00 PM	3
Customer interview	1 day	8/23/21 8:00 AM	8/23/21 5:00 PM	4
Analyse accounting	2 days	8/24/21 8:00 AM	8/25/21 5:00 PM	5
Order and payment check	2 days	8/26/21 8:00 AM	8/27/21 5:00 PM	6
Field work	2 days	8/30/21 8:00 AM	8/31/21 5:00 PM	7
Developing the report	1 day	9/1/21 8:00 AM	9/1/21 5:00 PM	8

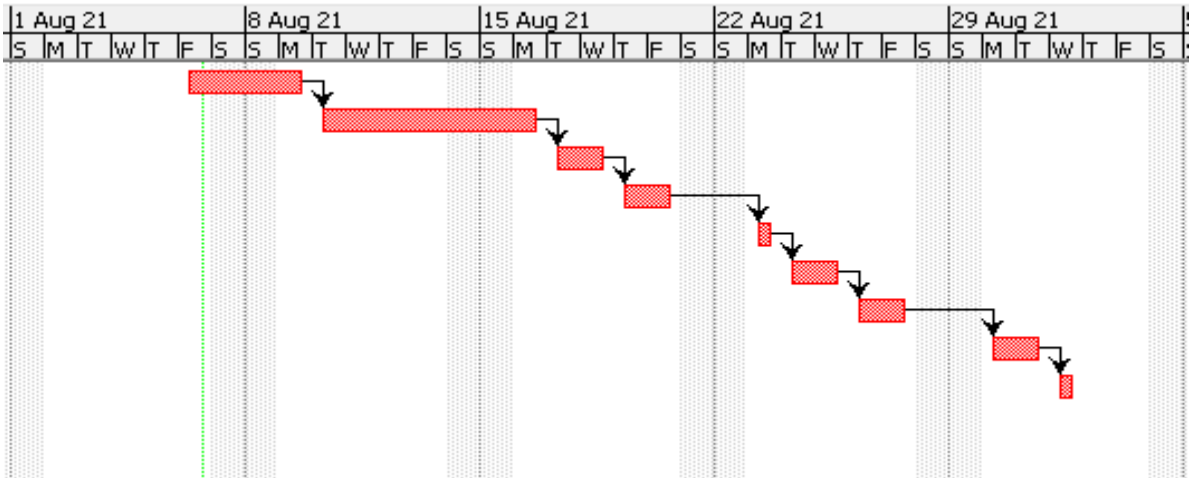

Figure 3: Project timeframe

(Source: Self-developed)

A total of 2 days have been allocated for meeting the Henry's Organics staff which is supposed to start from 6th of August. Stuff interview appears to be the next step which is the longest among all the activities that consumes a total of 5 days followed by customer record, financial documents review of 2 days. After that comes observing the business operation which is of 2 days as well, interview with the customers will take place after that for 1 day followed by accounting analysis and review of product order and payment check for 2 days each. Field work will consume another 2 days and finally 1 day is allocated for preparing the system development report.

4.

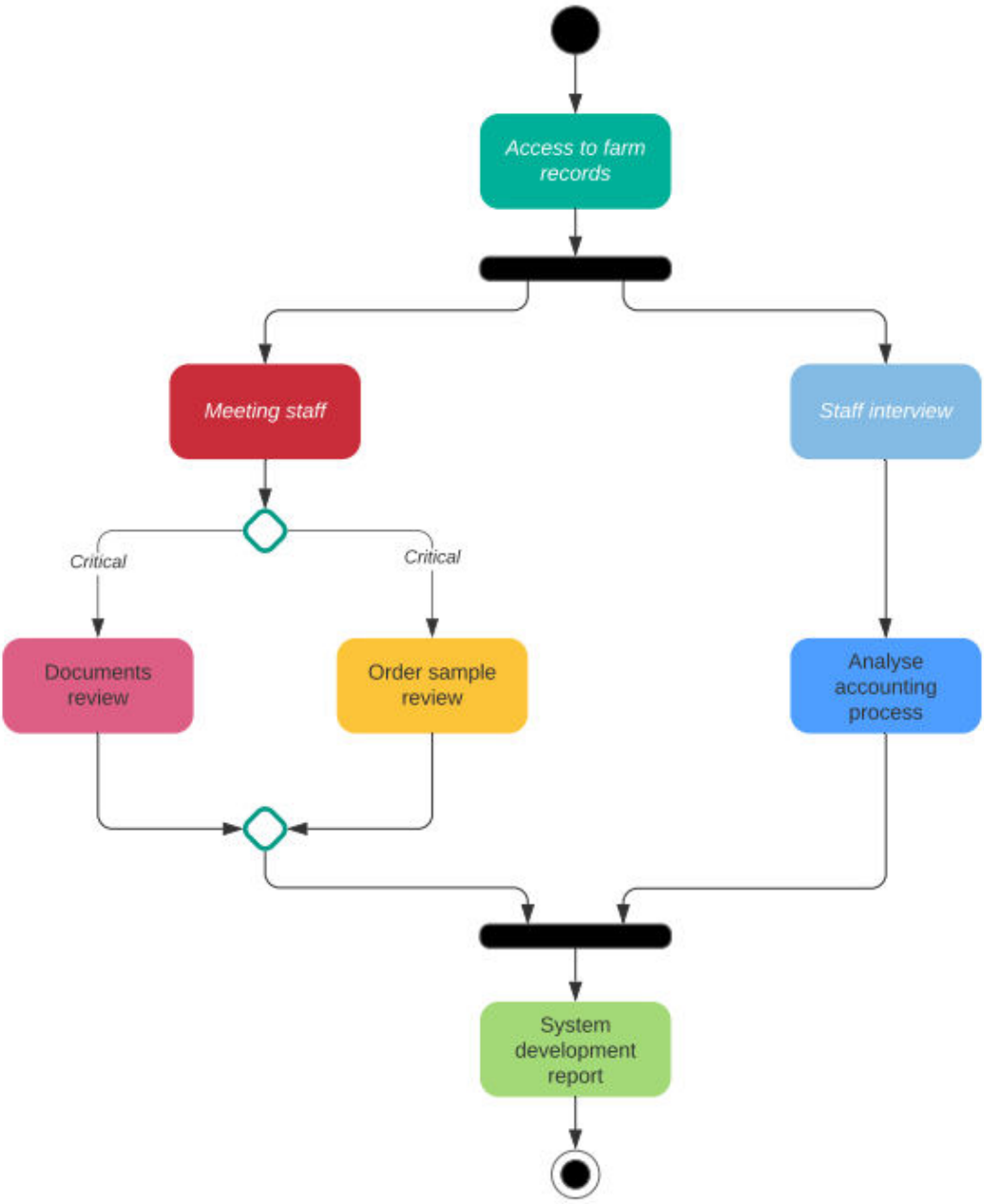

Figure 4: CPM chart

(Source: Self-developed)

Based on the project activities interaction with the Henry's Organic's staff appeared to be most critical in this regard. In order to access the crucial farm documents such as customer contact details, address, accounts report and cost and profit details, meeting with farm staff is important for this project. Moreover, the system analyst is also to conduct a direct interview session with the staff which essentially can help accessing confidential documents of the concerned organisation.

Order sample and document review have emerged as the most critical aspects for the system manager to complete this report. Staff interview is expected to be smooth once the staff meeting has happened and access to review business documents makes it earlier for the analyst to collect accounts details. Therefore, activities such as staff interview and accounts analysis appear to be comparatively less critical for this project.

5. A total of 19 days have been allocated for preparing the system development report where activities such as “meeting farm staff”, “staff interviews”, “review farm records”, “observing business operations” and “customer interview” will be considered. In addition, “analyse accounts”, “evaluating the order samples” and “field work” are also included in the project plan. A minimum day of 1 day and maximum of 5 days for individual activity has been considered for this system development report.

Activity 4

1. This project aims to develop a system report that considers key issues faced by the business and its suitable solutions, however the project has few major concerns to address. As opined by Ibadov (2019), time emerged as one of the most common project management constraints in terms of meeting deadlines with effective work quality. Concerning this project only 5 days have been allocated for staff interview which is the most crucial activity among all for this project. In addition, only 1 day has been given for customer interview which is supposed to highlight the product quality and delivery system of Henry’s Organics. Moreover, personal interviews with staff and the customers requires the system analyst to travel to various places which demands an additional budget that has not been provided by the company. Limited time can force the analyst to hurry and miss out on crucial information while financial constraints restrict detailed findings from staff and customer interviews. Therefore, a limited time period and restricted budget emerged as major risks associated with this project management.

2. Concerning this project, direct influence on the product order process appeared as “tangible benefits” for Henry’s organics. According to Hackius and Petersen (2020), measurable benefits clearly reflect on the project quality and shape the organisational performance eventually. Concerning this project, integration of exclusive web pages to customer order can significantly change product ordering process and enhance customer experience. As stated by Hadjinicolaou and Dumrak (2017), intangible benefits lift up the organisational morale by integrating a business value. Relating it with the project, customer interaction appeared as major intangible benefits that

essentially improves the bonding between consumer and the brand. This can also be further utilized while product marketing which will take place soon for Henry's Organics.

3.

Expense category	Amount
Salaries	$50,000
Project equipment	$15,000
Training	$9,000
Facilities	$6,000
Travel	$2,000
Licenses	$1,500
Total cost	$83,500

Table 2: Estimated cost summary of system development report

(Source: Self-developed)

Considering the current market standard $50,000 amount has been allocated for the salary of system analyst. In addition, $15,000, $9,000 and $6,000 amounts have been allocated for project equipment, training and facilities purposes respectively. $2,000 and $1,500 amounts are considered for travel and license purposes which makes the total cost $83,500 for this project.

4. $1,10,000 is considered as estimated total benefits of this project whereas the total cost stands at $83,500. Applying "Return On Investment (ROI)" cost-benefit analysis process, total cost needs to be subtracted from total benefits, divided by total cost. Integrating this method ROI for this project stands at 31.73% which appears to be a significant gain and thus Henry's Organics can certainly go for this project.

5. This project essentially addressed the lack of infrastructural challenges in Henry's Organics and based on that its customer service appeared to be the most crucial area. As stated by Ben *et al.* (2019), customer service is recognised as a pillar of any business and effective customer service eventually enhances the brand performance by improving organisational image. Integrating it with the case study, improved customer service and "product order system" can essentially enhance the brand image of Henry's Organics. Therefore, considering the project aims, an improved brand image in the near future appears as key assumption in this regard.

6. Considering the project quality, limited time period and restricted budget appears to be the major risks for this project. As stated by Shanks *et al.* (2018), allowing additional budget prior to the

project start can be helpful in filling the void of insufficient cost. Therefore, the concerned project can apply the same and allocate a prior budget for project activities while utilising it if necessary. Using this back-up plan and considering the project scope this project can certainly be termed feasible for Henry's Organics.

7. The proposed information system significantly considers mitigating the threats related to customer service and product delivery primarily. In addition, addressing the payment issues, equipment handling and marketing have also been considered as major scopes of this project which essentially makes it a strong business case. As stated by Luong *et al.* (2021), system information ensures storage of the business documents and also offers a systematic evaluation by using computer software's. Therefore, it is highly recommended to include the system development report as a part of preliminary investigation to conduct a systematic review of the farm documents.

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