BBM475 Management Information Systems
2019 Fall, Term Project

DEFINITION AND ANALYSIS OF THE TARGET SITUATION (T2)

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(A) Transaction Processing System (TPS)

1. DESCRIPTION OF THE NEW BUSINESS PROCESS

It is a mobile application where customers can follow spare parts change. Also customer can follow his/her car in which step. (step -> repairment or e.g)

With this mobile application are the inputs from the customer:

- The part the customer wants to change
- Appointment interval requested by customer for change

The outputs given to the customer with this mobile application are as follows:

- Can the technical service make this change
- Are spare parts available
- Possible appointment range
- Customers confirm and make an appointment with the current dates shown

2. DESCRIPTION OF COMPETITIVE ADVANTAGE

Fast data flow and meeting customer demands with high success rates

Quickly transferring the customer's first request to the service part and directing the customer to the right service helps to accelerate business processes.

3. TECHNICAL DETAILS OF TRANSACTION PROCESSING SYSTEM

Hybrid cloud computing is an environment which combines public clouds and private clouds by allowing data and applications to be shared between them.

Using Azure Hybrid Cloud Servers, a service provided by Microsoft, data from this application can stream data without setting up their own servers, lowering the cost of hardware by leasing methods only. (Hardware)

The software required for this new TPS, as mentioned above, is a software that is recommended to check the information received from the customer and the data in the hands of the service and to direct it to the right service at the appropriate date. (Software)

4. DETAILS OF USING TPS IN EXECUTING THE NEW BUSINESS PROCESS

In the old workflow, the employee who makes phone calls and consultations with customers will now check and follow the information entered into the system with the software to be used and the workload will be reduced. The customer will follow the status of his request from his interface and decide whether to grant change approval. If the parts that are planned to be changed are not in stock when customer approval is obtained, the sought part will be ordered from the nearest warehouse and the business process will be accelerated.

5. INTEGRATION OF TPS SUPPORTED BUSINESS PROCESS INTO EXISTING SITUATION

The sales records kept in the current system will be transferred to the new system with Web APIs. In the light of this transferred information, the information obtained from the current system will also be transferred to the current system with the Web APIs. At the same time, the data related to the spare parts in this new work flow are sent to the existing spare system and data acquisition from the parts system will be provided.

(B) Management Information System (MIS)

1. DESCRIPTION OF THE NEW BUSINESS PROCESS

The new MIS business process we propose is from the data obtained through our mobile application, which is the Service Maintenance System that we recommend for TPS, which are the most sold products, to check campaigns over these products and to see why these products fail and if there is an error in production to follow.

2. DESCRIPTION OF COMPETITIVE ADVANTAGE

These newly created management information systems will provide advantages in comparison to competing companies at the following points:

- Company stocks provide the most sold products more and parts requests of the user will be met in no time.
- It will help to keep the repair process shorter than other companies.
- The customer will be able to monitor the time of the vehicle at what time and at which stage without the need to call the phone 24/7.
- With this method, the workload of the company consultants will be alleviated and it will be ensured that they make efforts in the right places.

3. TECHNICAL DETAILS OF MANAGEMENT INFORMATION SYSTEM

The interaction between the Microsoft AZURE Hybrid cloud and the TPS application and analysis software will be ensured, with no separate hardware requirements for these analysis parts. In software, the data obtained will be provided with Microsoft PowerBI via dashboard reporting and statistical documents, all these operations will be provided with microservices. stages of the users will be targeted.

4. DETAILS OF USING MIS IN EXECUTING THE NEW BUSINESS PROCESS

With this new management information system, service managers will be able to see the prescribed depletion dates of existing stocks and will be able to order the right amount of the right product based on these dates. Furthermore, on the customer side, customers will be able to follow the current status of their vehicles and the estimated repair times. In addition, customers will be able to monitor the supply status provided by the company if their spare parts need to be procured.

5. INTEGRATION OF TPS SUPPORTED BUSINESS PROCESS INTO EXISTING SITUATION

The areas where it will work in integration with the existing systems are only common databases and the data taken from it will be reported. Therefore, the part that will be integrated will be only common data usage.

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APPENDIX-I:
TRACEABILITY OF TARGET SITUATION TO THE EXISTING SITUATION

EXISTING SITUATION		**TARGET SITUATION**	
BP Activity	***Supporting IS***	***BP Activity***	***Supporting IS***
Taking reservation by telephone	-	*Taking reservation*	*TPS (mobile application)*
Vehicle Registration	Minerva (Web Application)	Vehicle Registration	Minerva (Web Application)
Vehicle Problem Analysis	-	Vehicle Problem Analysis	-
Communication to get approval for spare part between customer and employee by telephone		*Registration spare parts to mobile application*	*TPS (mobile application)*
Making order for spare parts if there is no in stock	Minerva (Web Application)	*Customer can confirm spare parts and pay fee with mobile application and if there is no stock , automaticaly spare part is made order from other storage.*	*TPS (mobile application)*
Replacement Part		Replacement Part	-
Payment		Payment	-
-	-	*Manager can make a decision about what items should be more store in stock according to order reports of Desktop application*	MIS (desktop application)
…	…	…	…

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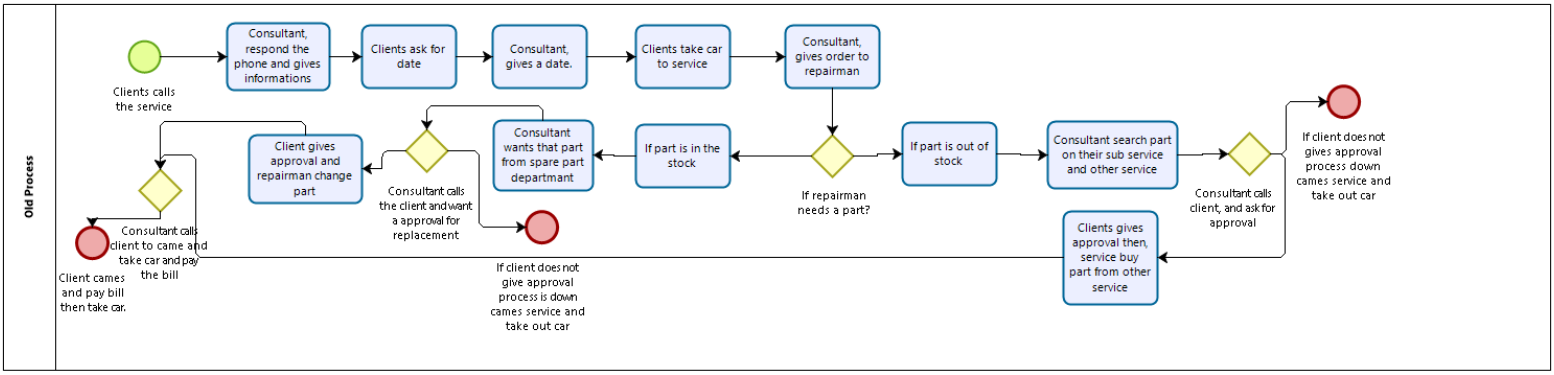
APPENDIX-II:
GRAPHICS FOR TPS

Old Process



New Process