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| Interim Review |
| 03.03.2016 | 08:30 AM | SIS 4.1 |
| Meeting called by | Professor Kam |
| Type of meeting | Supervisor Meeting |
| Facilitator | Professor Kam |
| Note taker | Yap Jessie |
| Timekeeper | Professor Kam |
| Attendees | Oh Peng Ho, Yap Jessie, Professor Kam |
| Market Basket Analysis |
| 25 MIN | Professor Kam |
| Discussion | * too eager to do a lot of things, but do not do enough literature review on how others do the analysis
* must show that you have done a lot of readings in the analysis
* important to lay out the characteristics of company… see other papers’ market basket analyses format
* 2 unique characteristics that were not mentioned
	+ 2 outlets
		- what are the differences? (available in most papers)
	+ availability of set meal
		- how to approach the analysis when there already is a set meal (not clearly shown what we did in our interim report)
		- must be stated and explained in the paper, else there is no understanding in what and why you are doing things
* selection of tools
	+ why do we not review SAS enterprise miner?
		- We have access to SAS so we should try to use SAS, even if we cant bring it forward to the client. Can tell client that actually it is good to use / worth the money, etc
* List of references from Prof
	+ Should still input data into transaction format (data transformation without writing code for MBA), easier for processing and cleaning using RaidMiner
* Show step by step (such that anyone with the exact same dataset will be able to replicate your analysis, and also UNDERSTAND WHAT YOU ARE DOING)
* Show the modeler / RapidMiner process (operators) (MBA generating recommenders using RapidMiner)
	+ Input the calibration
	+ Explain what each operator does and why you are using it
	+ Linked network, need to be able to describe the linked network operators
	+ Visual and output report is meant for the layman user, so they also need to be able to understand the report
* Recommendations
	+ Provide recommendations UNDER THE CORRECT HEADINGS
	+ Different parts of report for difference audiences
		- Tech
		- Business analyst
		- Management
* Determine support and confidence
	+ Self-determined. If data not big enough, it’ll be low. So try a few numbers. Benchmark, then fine tune
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| Conclusions | * Use SAS for MBA
* Clean POS data to input proper format into RapidMiner
* Refine report
	+ Market Basket Analysis
		- include background of client and why it is unique
		- Include data cleaning part using Rapid Miner
		- Include screenshots for Rapid Miner and show each step of the process to guide technical people, business analyst
		- Recommendations must be more specific to management.
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| Action Items | Person Responsible | Deadline |
| Clean POS data to input proper format into RapidMiner | Oh Peng Ho | 7 March 2016 |
| Clustering |
| 10 MIN | Professor Kam |
| Discussion | * Cluster analysis is more for pattern finding. Not appropriate for KPI attribute identification
	+ objective: not really to find KPI, but is to segregate the staff, then measure them against pre-determined variables (sales and number of customers)
	+ appropriate for us, just need to explain this properly in the report
* Finding variables / indicators that can be used for KPI measures 🡪 Classifications method; multi-regressions method, correlation (continuous data)
	+ appropriate indicators and the relative importance of each indicator (statistically significant)
* How to account for staff away from counter when sales is made
	+ standardization does not help
	+ should analyze data during peak / off-peak, to understand the distribution of off-peak and peak, understand transactions values, # of cust 🡪 maximum / minimum transform to ensure that both data is able to be compared
	+ StdDev seems quite big. Contrast stretch method.
	+ THIS IS WHAT WE DID. NEED TO EXPLAIN THIS PART CLEARER.
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| Conclusions | MAJOR PROBLEM IN REPORT* communication of what we are doing, why we are doing, how we are doing
* avoid terms like “prediction”, because we are not doing any predicting

Clustering* Re-write objective – classify the boundaries of what a good staff is, emphasise that it is not about finding out the attributes that drive performance. It is finding out the values of the indicators that we already defined (sales and number of customers), to determine a good worker
* Optional only if we have properly done the rest of the report
	+ to determine attributes that affect shop performance
		- * Experience of staff working
			* Number of staff working
			* People who are working
			* Age
			* Gender
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| Action Items | Person Responsible | Deadline |
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