To: WGU University, Mentor

Subject: Supply Chain Management, task 1

I prepared analytical report to discuss with my management team as I review my company's performance in the simulation.

I have the 4 quarters to get this company off the ground. Within this time frame, I should become a self-sufficient firm, earning substantial profits from my operations. A balanced scorecard will be used to measure my firm's performance and to compare my results with those of my competitors. My goal is to be the best competitor in the marketplace

Here are the documents from my simulation:

Fourth quarter cumulative balanced scorecard:

Here is your Final Cumulative Balanced Scorecard:

Cumulative industry results for last four quarters ending in quarter: 4				
	Minimum	Maximum	Average	Araz.Personal.Computer (APC)
Total Overall	0.00	1,099.80	36.78	0.00
Financial Performance	-50.53	237.10	30.76	-37.32
Market Performance	0.00	0.74	0.31	0.04
Marketing Effectiveness	0.00	0.82	0.65	0.49
Investment in Future	0.00	34.81	1.63	5.29
Wealth	-10.17	5.67	1.36	-0.38
Human Resource Management	0.00	0.82	0.67	0.59

Asset Management	0.00	2.36	1.08	0.33
Manufacturing Productivity	0.00	1.00	0.71	0.14
Financial Risk	0.00	1.00	0.88	0.50

Income Statement

The fundamental goal of your firm is to earn a profit.

Income Statement				
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Gross Profit				
Revenues	0	406,500	837,000	612,500
- Rebates	0	10,675	15,875	11,800
- Cost of Goods Sold	0	308,340	441,709	299,369
= Gross Profit	**0**	**87,485**	**379,416**	**301,331**
Expenses				
Research and Development	180,000	60,000	60,000	0
+ Advertising	0	205,130	193,500	163,500
+ Sales Force Expense	0	147,590	352,216	200,580
+ Sales Office Expense	460,000	670,000	450,000	450,000
+ Marketing Research	0	15,000	15,000	15,000
+ Shipping	0	9,692	13,215	10,149
+ Inventory Holding Costs	0	12,750	15,773	4,211
+ Excess Capacity Cost	0	574,271	510,379	1,312,907

+ Depreciation	0	25,000	25,000	70,833
= Total Expenses	**640,000**	**1,719,433**	**1,635,083**	**2,227,180**
Operating Profit	**-640,000**	**-1,631,948**	**-1,255,667**	**-1,925,849**
Miscellaneous Income and Expenses				
+ Other Income	0	0	0	0
- Other Expenses	0	0	0	0
= Earnings Before Interest and Taxes	**-640,000**	**-1,631,948**	**-1,255,667**	**-1,925,849**
+ Interest Income	0	0	0	0
- Interest Charges	0	0	0	73,444
= Income Before Taxes	**-640,000**	**-1,631,948**	**-1,255,667**	**-1,999,293**
- Loss Carry Forward	0	0	0	0
= Taxable Income	**0**	**0**	**0**	**0**
- Income Taxes	0	0	0	0

= Net Income	**-640,000**	**-1,631,949**	**-1,255,667**	**-1,999,293**
Earnings per Share	-32	-54	-30	-46

Balance Sheet:

Balance Sheet				
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Current Assets				
Cash	760,000	25,551	1	1
+ 3 Month Certificate of Deposit	0	0	0	0
+ Finished Goods Inventory	0	127,500	157,732	42,106
Long Term Assets				
+ Net Fixed Assets	600,000	575,000	1,650,000	1,579,167
= Total	**1,360,000**	**728,051**	**1,807,733**	**1,621,274**
Debt				
+ Emergency Loan	0	0	1,335,349	3,148,183
Equity				
+ Common Stock	2,000,000	3,000,000	4,000,000	4,000,000
+ Retained Earnings	-640,000	-2,271,949	-3,527,616	-5,526,909

= Total	**1,360,000**	**728,051**	**1,807,733**	**1,621,274**

Here is my action during simulation and simulation results at the end.

I put some extra brand name in simulations but I did not produce them as shown below in simulation result.

Company Name:
Araz.Personal.Computer(APC)

Company Goals:
Reaching target markets and being the best. Focus on smaller, high margin segments. In geographic market focusing on largest geographic markets, even if they are more expensive

Mission Statement:
To be the providers of Computer strategies and services, which deliver long term commercial benefits, based upon our clients key business requirements. The strategies evolved should be economical, efficient, durable, and flexible and allow the organizations to respond rapidly to both market and customer needs.

Major Media Placement:

World Market			
		Number of times ad should run in market	
Media	Cost	ARAZ ELECTRONIC	ARAZ COMPUTERS
Business Newspapers	23,000	0	1
General Business Magazine	16,000	1	0
Computer Magazines	5,000	1	1
General News Magazines	8,000	1	1
Leading Trade Journals	7,500	1	0
New Venture Magazines	9,000	0	0
Sports Magazines	24,500	0	0
Executive Business Magaz	29,000	1	1
Science & Technology Mag	15,000	0	1
Daily Newspaper	9,000	1	1
Leisure & Entertain Mag	18,000	0	0

Total Advertising Expenses for Major Media = 163,500

Price and Priority:

World Market				
Brand	Available for Sale	Retail Price	Price Rebate	Sales Priority

ARXE		0	0	0
ARAZ LAP	X	3,500	150	1
ARAZDESK	X	3,000	100	2
AYNAR		0	0	0
ARXE COMPUTERS	X	4,500	200	3

Market Research:

Market Research		
Region	Cost	Buy
World Market	15,000	X

Total Expenses = 15,000

Sales People:

World Market	
	Quarterly Training Costs

			3,000	2,000	4,000	3,000
City	Annual Compensation	Total Sales People	Service Support	T	M	TR
Baku	38,145	4	1	1	1	1
Istanbul	38,145	4	1	1	1	1
Moscow	38,145	4	1	1	1	1
Kharkow	38,145	4	1	1	1	1

Total number of sales people in the prior quarter: 24

Total number of sales people in the current quarter: 16

Net change in number of sales people in region: -8

Cost to employ sales people for the quarter: 200,580

Total Sales Force Budget = 200,580

Sales Force Compensation Package:

Compensation Plan	
	Region Name
	World Market
What annual salary will you offer your employees?	33,000
What health benefits package will you offer?	Minimum package
How many weeks of vacation will you offer per year?	1 week

What percent of the salary are you willing to contribute to the employee's pension?	3%
Total compensation cost per year	38,145

Stock History:

Stock History					
Type	Name of Owner	Shares	Price per Share	Total Amount	Quarter
Common Stock	Executive Team	20,000	100	2,000,000	1
Common Stock	Executive Team	10,000	100	1,000,000	2
Common Stock	Executive Team	10,000	100	1,000,000	3
Financial Institution	Guido	1,335	1,000	1,335,000	3
Financial Institution	Guido	1,813	1,000	1,813,000	4
Total		43,148		7,148,000	

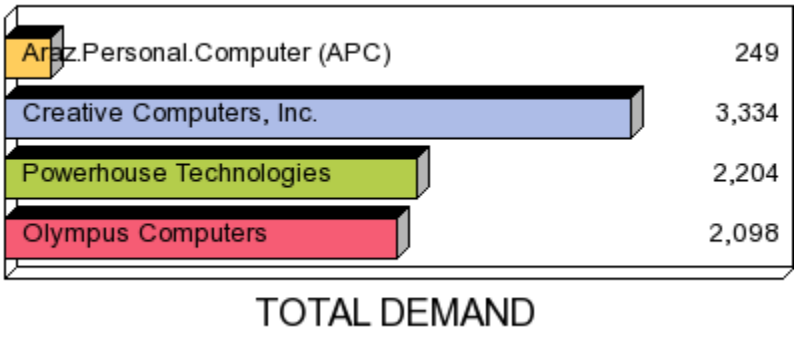
Certificate of Deposit:

3-Month Certificate of Deposit	
Total 3-month certificate of deposit investment from last quarter	0
How much would you like to withdraw from your account?	0
How much would you like to add to your account?	0

3-month certificate of deposit account for current quarter	0
Quarterly interest rate	1.5
Interest to earn	0

My success compared to other competitors

Here is the result: There are three different graphs below. It show my success during simulation and competitors.

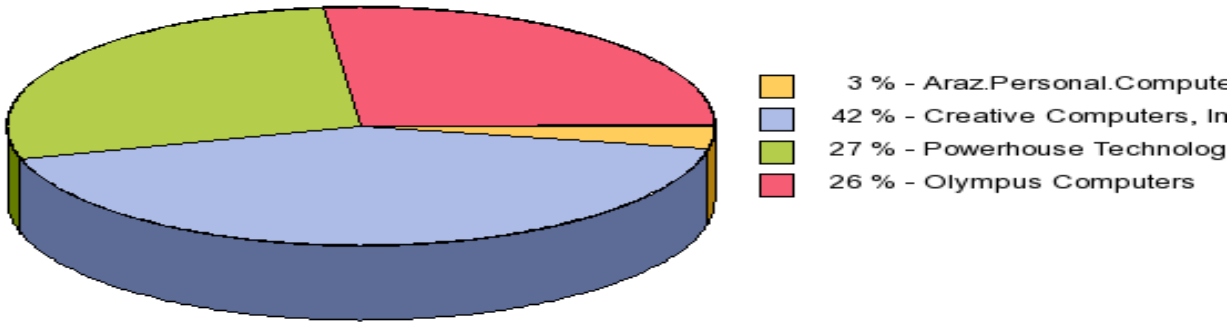


TOTAL DEMAND

Market Data - Select a City				
World Market	Tokyo-Asia	SaoPaulo-SoAmer	NY-NorthAmerica	Paris-Europe

Competitor Tactical Highlights				
	Araz.Personal.Computer (APC)	Creative Computers, Inc.	Powerhouse Technologies	Olympus Computers
Total Demand	179	10727	5123	6235
Number of Sales Offices	4	4	2	4
Total Sales Force Last Quarter	16	36	17	22
Number of Brands for Sale	3	4	4	4
Total RD Features Available	9	9	9	9
Average Price	3667	3300	3538	3450

Total Regional Inserts	12	28	24	28
Factory Location	Tokyo-Asia	Tokyo-Asia	Tokyo-Asia	Tokyo-Asia
Fixed Capacity	75	100	25	150
Operating Capacity	65	100	25	100
Current Quarter Balanced Scorecard	0	153	4	212



TOTAL MARKET SHARE

Alternatives:

It is obvious from the simulation that unfortunately I could not be successful for the first year but I do have some strategies to produce better result.

First one is increasing fixed capacity and operation capacity. My competitors have more than our company. Increasing this could be one of the positive alternatives.

Second one could be adjusting my strategy, it is essential to watch my competitors' moves and see am I competing head to head in the same regions? What segments are they targeting?

Third one can be learning a great deal from the sales force decisions of my competitors. First, I can discover how aggressive they are by the number of sales people they have. Second, I can discover which segments they are targeting by how they have assigned their sales people. Finally, I can tell which segment is more important by how many sales people are assigned to a segment.

Fourth one is focusing on only the most profitable markets and brands and not doing investments in new sales offices or further plant expansions.

Fifth one is developing a new brand to better meet your target segment's needs.
I can list more alternatives but let’s analyze and try those then I can focus on more alternatives.

Adequacy of Funds:

A company uses pro forma statements in the process of business planning and control. Because pro forma statements are presented in a standardized, columnar format, management employs them to compare and contrast alternative business plans. By arranging the data for the operating and financial statements side-by-side, management analyzes the projected results of competing plans in order to decide which best serves the interests of the business.

Pro forma statements are an integral part of business planning and control. Managers use them in the decision-making process when constructing an annual budget, developing long-range plans, and choosing among capital expenditures

It is shown in the simulation how I provided the production capacity that I needed to achieve my business goals ,even I was not successful for the first year but It does not mean that I will not be. I did some alternative plans to solve this problem.

I received loan and set up my business. At the end of the first quarter, I was in depth, $640,000. Second quarter my net income was -1,631,949 but I fixed that little bit ($400,000) by increasing production and sales capacity however fourth quarter I increased production capacity and decreased number of sales people and It did not affect my company positively. I think I should not decrease number of sales people since I gave them target that how many computers they need to sell each day. Number of sales was based on number of sales people.

My goal is avoiding from bankruptcy and risk.

Please see below for Pro Forma statement.

Pro Forma Income Statement

Pro-Forma Income Statement				
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Gross Profit				
Revenues	0	406,500	837,000	612,500
- Rebates	0	10,675	15,875	11,800
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- Interest Charges	0	0	0	73,444
= Income Before Taxes	**-640,000**	**-1,631,948**	**-1,255,667**	**-1,999,293**
- Loss Carry Forward	0	0	0	0
= Taxable Income	**0**	**0**	**0**	**0**
- Income Taxes	0	0	0	0
= Net Income	**-640,000**	**-1,631,949**	**-1,255,667**	**-1,999,293**

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Pro Forma Balance Sheet

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I did **Just in time** and **Lean operation** to make this business.

Just in time: Another name is Toyota Production System. Just in time is a production strategy that strives to improve a business' return on investment by reducing in-process inventory and associated carrying costs. JIT reduces inventory in a firm. However, a firm may simply be outsourcing their input inventory to suppliers, even if those suppliers don't use Just-in-Time (Naj 1993). Newman (1994) investigated this effect and found that suppliers in Japan charged JIT customers, on average, a 5% price premium.

In my Business, by making strategy quarter by quarter I would guess how many computers we can sell in a day and month. By doing that I can reduce inventory. I will save money. That is how I applied just in time process in business.

Another thing is more you keep in stock, It will be hard to change if something goes wrong with your product.

Lean Operation: Lean Operations is a series of mathematical and visual tools to streamline material and information flow. It encompasses continual waste reduction and looks at all processes from the perspective of the customer.

Working from the perspective of the customer who consumes a product or service, "value" is defined as any action or process that a customer would be willing to pay for.

I did this operation in third quarter after selling the first productions. After selling several computers and getting feedback from customer, I can guess what kind of computers customer wants and how much price. I will use this system more in next quarters.

Work Cells:

A work cell is an arrangement of resources in a manufacturing environment to improve the quality, speed and cost of the process. Work cells are designed to improve these by improving process flow and eliminating waste.

Classical manufacturing management approaches dictate that costs be lowered by breaking the process into steps, and ensuring that each of these steps minimizes cost and maximizes efficiency. This discrete approach has resulted in machines placed apart from each other to maximize the efficiency and throughput of each machine.

A work cell is defined as a collection of equipment and workstations arranged in a single area that allows a product or group of similar products to be processed completely from start to finish.

According to definition of work cell and result of simulation, we do have arrangement of resources in our manufacturing environment. We try our best to improve quality and production speed. For example, I did market research to improve the quality and eliminate waste and we do have a cost of the process. I attached some of them in project above.

Cost of the project helps me to figure out the flow in manufacturing system. By using simulation result, I can see that flow. (In simulation)

Also by guessing customer demand and arranging inventory system, we can eliminate waste. Keeping products in inventory and not selling or selling them to cheaper that their cost, It is kind of wasting.

I analyzed the applicability of work cells to the manufacturing facility and I see that it is applicable.

Inventory Management

I need to know which brands to produce each quarter and the maximum amount of inventory to leave on the shelf at the end of the quarter.

There is very little need to leave much inventory in the warehouse at the end of the quarter. It would be better to stop production and send workers home with full pay than to fill up the warehouse with inventory. This is because inventory costs a great deal of money and could become obsolete in the next period

Here is my inventory table from simulation result. I would prefer keep employees after regular work hour and produce how much I need to keep too much inventory.

Leftover inventory price will be lower than my cost to produce the product and I will lose money on every unit I sell this way.
But at the same time keeping little amount in inventory is good for sudden/unestimated customer demands.

As you see, I have 40, 30 and 20 computers in inventory. It depends on brand. It is listed below.

Inventory Control		
Brand	Produce	Maximum Inventory at the End of Quarter
ARXE		0
ARAZ LAP	X	40
ARAZDESK	X	30
AYNAR		0
ARXE COMPUTERS	X	20

Continuous Improvement Program:

It is very important program to achieve quality assurance goals. There are several methods that we can do. One of them is customer satisfaction.

Customer Satisfaction: Quality is measured by the success of our products and services in helping our customers achieve their goals. Each time we should get feedback from customers to improve our quality.

This improvement program starts from producing to delivery. Feedback works well for this, too.

I will prepare program that will involve continuous improvement of processes and procedures based on the goals and objectives of our customers. We continually analyze our procedures for potential improvement. We can also discuss this during staff meeting.

By improving this continuous program, we can eliminate waste, reduce response time, and simplify process or product design.

We should not do this program for today or several years, It is an ongoing effort to improve products, services, or processes. Delivery processes are constantly evaluated and improved in the light of their efficiency, effectiveness and flexibility

Under the improvement function, management works continuously towards revising the current standards, once they have been mastered, and establishing higher ones.

I did same thing in simulation system. I revised current standards and improved for the next quarters. For example. I increased production capacity.

Another way is benchmarking process. It is the process of comparing one's business processes and performance metrics to industry bests and/or best practices from other industries.

I did in the same way. I checked my competitors and tried to see their strategies. Quarter by quarter, in simulation analyze, I saw what my competitors did.

Also, I can do Brain storm each month to get my staff idea.

I believe that by using these methods above, I will improve simulation result. It means that I will do continuous improvement program.

Summary and Conclusion

In this assignment, we have looked at the meaning of supply chain management. Supply chain management is the management or control of a supply chain which is a network of facilities and distribution options that performs the functions of procurement of materials, transformation of these materials into intermediate and finished products, and the distribution of these finished products to customers.

We reflected on the various aspects of supply chain management with respect to the three flows of supply chain management.

The process of supply chain management may be based on various models. The five stages in the process of supply chain management are - plan, develop, make, deliver and return.

SCM or supply chain management can give productivity advantage as well as value advantage to the business.

SCM impacts a business through cost reduction, revenue growth, asset utilization, innovation, developing core competencies and increasing customer satisfaction.

Finally, in pursuit of the accomplishment of its main objective of making right choices, it helps the business to address and take care of various issues and problems

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