

Participant Nr.: \_\_\_\_\_

Date: \_\_\_\_\_

## **Appendix**

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## Informed Consent Form for “Improving Decision Making”

The University of North Florida invites you to participate in this experiment “Improving Decision Making” if you are 18 years of age or older. The experiment will take approximately 3 hours. After playing the game CHOCO-FINE (2.5 hours), you will be asked to answer surveys referring to basic demographic information, computer experience, and personality characteristics.

The purpose of the experiment is to explore how people make decisions in the complex and novel CHOCO-FINE situation. This is a timely issue because many schools and workplaces are using such simulations more often nowadays. Participating in this study may provide an opportunity to learn problem solving skills. Please check with your course instructor to determine if participation qualifies as a means of obtaining extra credit in their course. There will be no compensation for participation other than the potential benefit of extra credit if your instructor allows it.

It is important for you to know that you will not be judged in any way during the experiment. All answers will be kept anonymous and all information will be kept in the researcher’s locked lab. Furthermore, your name on this sheet of paper will not be connected to any of the data collected during your session. You will be assigned a number that will be used to mark your computer and survey data, and this number will not be connected to you in any way. There is only minimal risk for this experiment, i.e. experiences in this study are similar to routine experiences in daily life. If you have any questions about this experiment, feel free to contact Dr. Christoph Dominik Güss by phone: (904) 620-1634 or e-mail: dguess@unf.edu. If you have questions about your rights as a volunteer in this research project, please contact Dr. Katherine Kasten, UNF Institutional Review Board, (904) 620-2498. If you need help, feel free to contact the Counseling Center. During Spring and Fall, the hours of operation of the UNF counseling center are as follows: Monday and Thursday from 8:00 a.m. to 7:00 p.m. Tuesday, Wednesday and Friday from 8:00 a.m. to 5:00 p.m. The UNF Counseling Center is located in Bldg 2, Founders Hall, Room 2300, 1 UNF Drive, Jacksonville, FL 32224-2645. The phone number is 904-620-2602.

Participation in this experiment is completely voluntary. Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. If you feel uncomfortable, you may discontinue participation at any time for any reason without penalty or loss of benefits. If you chose to participate, please write your name and sign below.

Potential participants who have limited decision-making capabilities will not be permitted to take part in this study because there is not significant direct benefit for those individuals. Cognitive decision-making is one of the variables being studied in this research study. Therefore, there is not significant direct benefit for individuals who have limited decision-making capabilities and these individuals will not be permitted to participate in this study. Participants must be at least 18 years old to take part in this study.

Thank you for your participation in this experiment.

I, (write legibly in block) \_\_\_\_\_, agree to participate in the “Improving Decision Making” experiment.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Experimenter: \_\_\_\_\_ Date: \_\_\_\_\_

# CHOCO-FINE: Factory for fine Chocolates

## Introduction and Directions for Using the Computer Program

In this scenario, you take the role of a manager of a small chocolate factory called “CHOCO-FINE“. CHOCO-FINE is a small company with a total of about 50 employees, 30 of them working in production. The company produces 8 different types of chocolates: Milk, Bitter, Yoghurt, Nougat, Raisin, Mocha, Nut, and Marzipan.

To make it brief, it is your task to lead the company successfully; That means that (a) you have to plan the production in line with the market and cost-effectively, and (b) that you arrange marketing, advertisement, and sales in such a way that your sales volume increases. CHOCO-FINE is located in Vienna and solely works in the Vienna market region. And another simplification: In the world of CHOCO-FINE, a month has 20 days – 4 weeks with each 5 work days. You have to make your decisions for the whole month always on the first day of the month. The handling of the program seems confusing only at first sight. You will learn very fast, where you can find the desired information and how you can implement your decisions. The user interface of the program consists of three screens, i.e. (1) the main screen which you see when the program starts, (2) the “production screen” (when you click “production” or press F8), and (3) the “marketing screen” (when you click “marketing” or press F7)

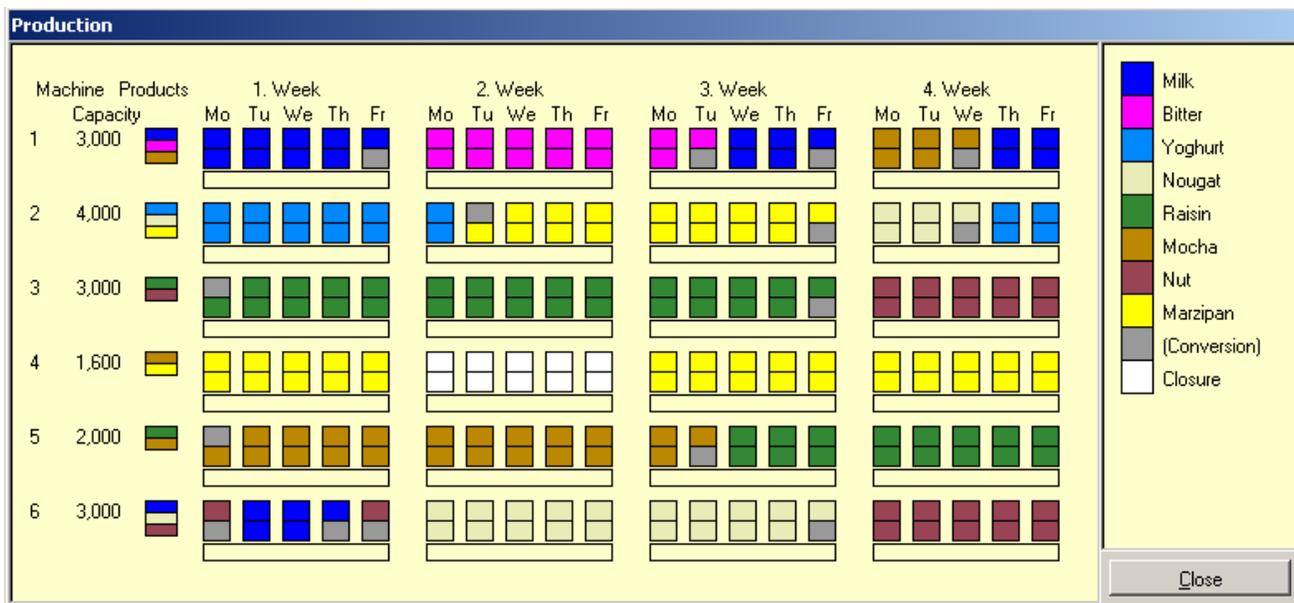


**1. Main screen:** Here, you can see basic data and information. In the upper big graph, you see the development of production, demand, and sales. Below, you see the account balance. In the upper right

corner you can see (if you look very fast) the deliveries per day; below, you see the stock of inventory. The stock of inventory is shown in light blue (left ordinate in 100,000); open orders are shown in green (right ordinate in 1,000).

In the three windows in the lower part, one has the option to look at plenty of data which might be relevant for making decisions: Costs, production, sales, raw material, etc. By selecting a month in the left window, you can go back to data from previous months. With the control panel on the lower right side, you switch to the other two screens and -importantly- let the simulation run. Please only click on "Continue" (or F9) once you have made all necessary entries.

**2. The production screen:** Here you can see six machines, their capacities per half day, which kinds of chocolates can be produced on each of them, and the 20 work days of the month, divided in two half days. You can change the allocation of the machines by clicking on the desired kind of chocolate on the right side of the screen and then by clicking on the corresponding half day fields. By selecting the bar for the whole week, the production is switched to the desired chocolate for the whole week. When you switch production to another type of chocolate, a half day conversion time (grey) is necessary – during this half day, nothing is produced. You should try to operate the production in such a way that the demands can be accommodated. Of course, the amount of the chocolates as well as the types of chocolates desired changes during the course of a year.



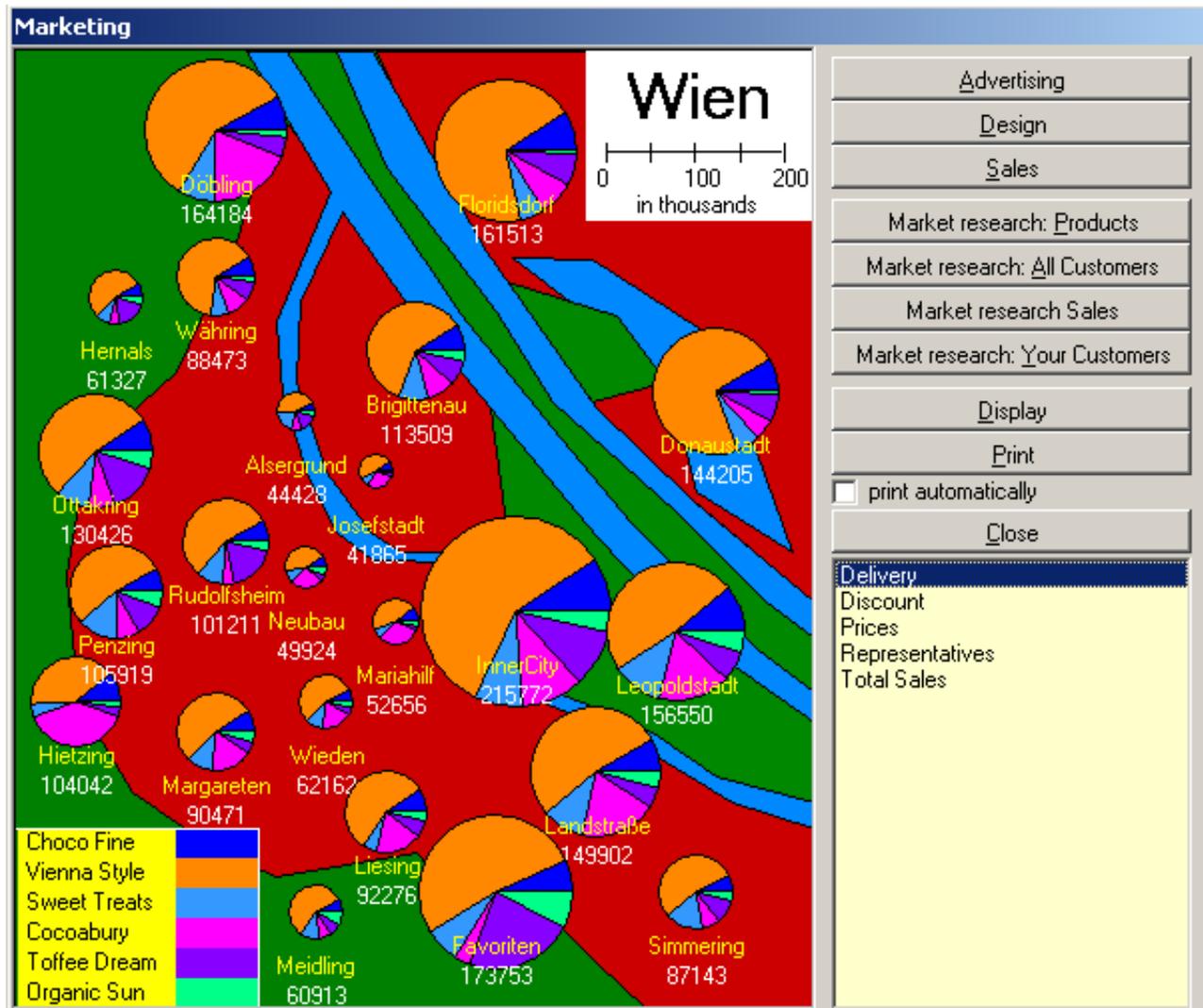
**3. Marketing screen:** In this screen, you can see a stylized map of Vienna with the different districts/counties and quarters shown in pie charts. The size of the pie corresponds with the size of the local market; the parts of the pie represent the market shares of the different manufacturers (CHOCO-FINE is shown in blue). You see immediately that Vienna Style is in most districts the market leader.

The right part of the window provides you with several possibilities to gather information or to make decisions. From the top to the bottom: "Delivery", "Discount", "Prices", etc. Produce lists with specific data for the different districts. "Prices" shows also the prices of the competitors' products. That is why this function is related with moderate costs. In the bar "Market research", you can request information about the market (with costs). "Market research: Products" allows the study of the product profiles of all competitors. You can see if a specific kind of chocolate is sold because of its price or because it is regarded as especially "healthy", "young",

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luxurious”, etc. or if it exists in special forms (e.g., as bunny or as Santa Claus) or if it is sold with attached add-on items (e.g., small toys). “Marked research: All Customers” shows which group of buyers prefer which characteristics of chocolates. “Marked research Sales” shows in detail which competitor sold how many pieces of which product in which district. “Marked research: All Customers” shows how many people of which group of buyers live in which district.



Decisions can be implemented through the upper three buttons *Advertising*, *Design* and *Sales*. *Advertising* allows you to do specific advertising for specific products for specific groups of buyers and of course, it allows you to change specific characteristics of your products. *Design* allows you to change the design or the packaging of your chocolates. Of course, these decisions involve costs. Under *Sales*, you can distribute the activities of your 10 sales representatives in the specific districts, and you can hire additional sales representatives or you can fire some of them. You can buy new trucks for the transport of your goods and you can define new prices (which are valid for all districts), or you can allocate discounts (for specific districts).

Just try the different possibilities, and you will easily understand the logic of handling the system.

Here is some additional information:

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- Four workers are dealing with each machine. The hourly wage per worker is \$25,- pre-tax which is \$4,000, - per month. Truck drivers earn the same.
- Sales representatives earn \$5.000, - per month.
- Each machine needs per half day energy amounting to \$50, -.
- There is no inflation.
- For chocolates, which are especially luxuriously or ecologically styled the production costs increase by 5%. For especially healthy products the price increases by 10%.
- The production/manufacturing costs for each product contain the machine operating costs, the personnel costs operating the machines, and the costs for raw materials. The costs for the central administration/business management (ca. \$23.000,- per month), interest, special charges, advertising expenses etc. are not included in these costs.
- For the factory, you only have to pay sales tax of 10%.
- The rate for interest on debt is currently 8%, the rate for interest on assets is 3%.

And now: Good luck for working on CHOCO-FINE! You will now manage the company in the next 2 hours for 24 months.

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### **3 Self-reflective Questions**

What did I do well?

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What can I do better?

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How can I use the Decision-Making steps more effectively?

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### Personality Questionnaire

1	2	3	4	5	6	7
strongly disagree	disagree	somewhat	disagree	agree	somewhat	strongly agree
				agree		

1) I don't often think about my thoughts. 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 \_\_\_ 6 \_\_\_ 7 \_\_\_

2) I am not really interested in analyzing my behavior. 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 \_\_\_ 6 \_\_\_ 7 \_\_\_

3) I am usually aware of my thoughts. 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 \_\_\_ 6 \_\_\_ 7 \_\_\_

4) I'm often confused about the way that I really feel about things. 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 \_\_\_ 6 \_\_\_ 7 \_\_\_

5) It is important for me to evaluate the things that I do. 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 \_\_\_ 6 \_\_\_ 7 \_\_\_

6) I usually have a very clear idea about why I've behaved in a certain way 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 \_\_\_ 6 \_\_\_ 7 \_\_\_

7) I am very interested in examining what I think about. 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 \_\_\_ 6 \_\_\_ 7 \_\_\_

8) I rarely spend time in self-reflection. 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 \_\_\_ 6 \_\_\_ 7 \_\_\_

9) I'm often aware that I'm having a feeling, but I often don't quite know what. 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 \_\_\_ 6 \_\_\_ 7 \_\_\_

10) I frequently examine my feelings. 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 \_\_\_ 6 \_\_\_ 7 \_\_\_

11) My behavior often puzzles me. 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 \_\_\_ 6 \_\_\_ 7 \_\_\_

12) It is important to me to try to understand what my feelings mean. 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 \_\_\_ 6 \_\_\_ 7 \_\_\_

13) I don't really think about why I behave in the way that I do. 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 \_\_\_ 6 \_\_\_ 7 \_\_\_

14) Thinking about my thoughts makes me more confused. 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 \_\_\_ 6 \_\_\_ 7 \_\_\_

15) I have a definite need to understand the way that my mind works. 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 \_\_\_ 6 \_\_\_ 7 \_\_\_

16) I frequently take time to reflect on my thoughts. 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 \_\_\_ 6 \_\_\_ 7 \_\_\_

17) Often I find it difficult to make sense of the way I feel about things. 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 \_\_\_ 6 \_\_\_ 7 \_\_\_

18) It is important to me to be able to understand how my thoughts arise 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 \_\_\_ 6 \_\_\_ 7 \_\_\_

19) I often think about the way I feel about things. 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 \_\_\_ 6 \_\_\_ 7 \_\_\_

20) I usually know why I feel the way I do. 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 \_\_\_ 6 \_\_\_ 7 \_\_\_

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### **Demographic Questionnaire**

Age: \_\_\_\_\_

Sex: Male \_\_\_ Female \_\_\_

English is my native language? No \_\_\_ Yes \_\_\_

My current major is in the college of business: No \_\_\_ Yes \_\_\_

What is your current student status? Freshman \_\_\_ Sophomore \_\_\_ Junior \_\_\_ Senior \_\_\_ Graduate \_\_\_

What is your cumulative GPA? \_\_\_\_\_

I have employment experience above an entry level position? No \_\_\_ Yes \_\_\_

What is the socioeconomic status of your home family?

Lower class \_\_\_ Middle class \_\_\_ Upper class \_\_\_ Higher upper class \_\_\_

Are you? Black \_\_\_ White \_\_\_ Hispanic or Latino \_\_\_ Asian American \_\_\_ Other \_\_\_

### **Computer and Gaming Experience**

I feel comfortable using a computer: No 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 \_\_\_ 6 \_\_\_ 7 \_\_\_ Yes

I use a computer: Daily \_\_\_ Weekly \_\_\_ Less than once per week \_\_\_

On average, how many hours per week do you work with a computer? \_\_\_\_\_

I feel comfortable playing a computer game: No 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 \_\_\_ 6 \_\_\_ 7 \_\_\_ Yes

How many hours per week do you play video games (average)? \_\_\_\_\_

When you play or have played video games, what type do or did you play the most?

Action/Reflex 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 \_\_\_ 6 \_\_\_ 7 \_\_\_ Strategy/Non-reflex

How many years of experience do you have with productivity programs like Word and Excel? \_\_\_\_\_

I am used to using a computer mouse: No 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 \_\_\_ 6 \_\_\_ 7 \_\_\_ Yes