# STUDIES ON CONSUMERS CONFIDENCE AND ATTITUDES ON THE ICE CREAM CONE CONSUMPTION IN SEMARANG

## STUDI TENTANG TINGKAT KEPERCAYAAN DAN PERILAKU KONSUMEN DALAM KONSUMSI *ICE CREAM* CONE DI SEMARANG

#### By: MELIANA ANGKA WIJAYA 01.70.0048

This thesis has been defended before the examiners on:

July 13<sup>th</sup> 2004

Semarang, July 2004
Department of Food Technology
Faculty of Agricultural Technology
Soegijapranata Catholic University
Semarang

Principal Supervisor,

(Ir. Sumardi, MSc.)

Lucia Sri Lestari, MSc.)

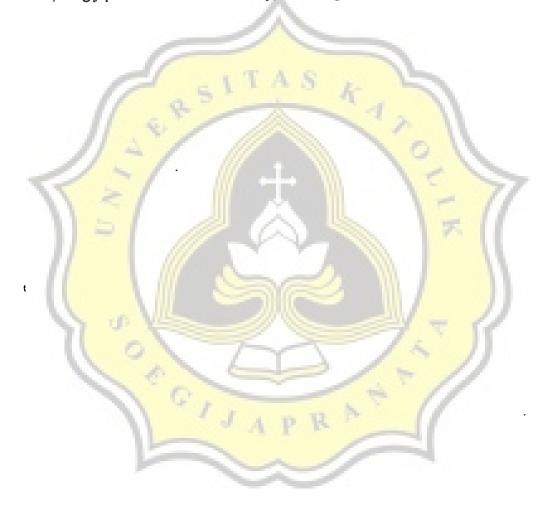
USAN TEKNOLOG

Co-supervisor,

(Iwan Budiharjo, Ph.D.)

Parts of this thesis have been presented at:

Wijaya, M. A., Sumardi, I. Budiharjo, 2004, Studies on Consumers Confidence and Attitudes on the Consumption of Ice Cream, The Fourth National Student Conference. Student Union, Soegijapranata Catholic University, Semarang, 25 June 2004



#### **SUMMARY**

Ice cream is composed of milk fat (butterfat) and milk solids-non-fat (MSNF) derived from these ingredients, added with sugar, stabilizer, and emulsifier, flavoring materials, water and air. Ice cream cone is a waffle rolled into a cone, to which ice cream is added in. The research was conducted to evaluate the consumer's confidence and attitudes on ice cream cone consumption in Semarang. The research was conducted at Citraland Mall to 380 respondents were. The respondents were chosen by purposive random sampling method. Every respondent was given 23 questions related to consumer's confidence and attitudes on the ice cream cone consumption. The data was then analyzed using non-parametric statistical analysis at 95% degree of confidence. From the research, genders and ages does not play important role to the consumer confidence and attitude on the ice cream consumption. The research documented that more than 99% of respondents acknowledged the main content of ice cream is milk, while more than 50% of respondents knew the other ingredients were egg, sugar, whipping cream, food colorant, and flavor. Although the respondents knew about the existence of added materials both in ice cream and cone. The confidence however was built based on understanding and common sense. Because of only limited type and amount considered of the ingredient that harmful to their health, they still confidence to consume, when both the consumption level and frequency of consuming ice cream cone were at low frequency. Although the ice cream cone is available at the respondents attitude in consuming ice cream cone is setting the consumption frequency rarely, i.e. mostly less than 10 times per month, at the situation they are relaxing at mall. As this level of consumption frequencies the negative effects of ice cream as well as the cone on their health will have no significant effects to their health. This is an attitude of consuming ice cream which lead to the stronger confidence to consuming ice cream especially ice cream cone.

#### **RINGKASAN**

Es krim terbuat dari lemak susu (butterfat) dan padatan susu tanpa lemak (MSNF) dan dari dua komponen ini, ditambah dengan gula, penstabil, pengemulsi, perasa, air dan juga udara. lce cream cone adalah waffle yang digulung hingga membentuk contong (cone) dimana es krim diletakkan di atasnya. Penelitian ini dilakukan untuk mengetahui tingkat kepercayaan dan perilaku konsumen dalam mengkonsumsoi ice cream cone di Semarang. Sebanyak 380 responden diperlukan untuk mengisi kuisioner yang telah disediakan. Peneltiian ini erlangsung di Mal Citraland jam 5-7 malam setiap harinya selama kurang lebih 2 minggu pengumpulan data. Responden dipilih berdasarkan metode sampel acak bertujuan tertentu (purpose random sampling). Masing - masing responden diminta untuk mengisi kuisioner yang terdiri dari 23 pertanyaan yang berhubungan dengan tingkat kepercayaan dan perilaku konsumen dalam konsumsi ice cream cone di Semarang. Data yang diperoleh kemudian dianalisis dengan menggunakan statistik non-parameter yang terdiri dari Chi-square tes, Kolmogorov Smirnov tes, Mann-Whitney tes, and Kruskal Wallis tes. Penelitian ini menunjukkan bahwa jenis kelamin dan usia dari responden tidak menunjukkan pengaruh nyata terhadap tingkat kepercayaan dan perilaku konsumen dalam konsumsi ice cream cone. Hasil penelitian juga mendapatkan bahwa lebih dari 99% responden mengetahui penggunaan susu sebagai bahan dasar pembuatan es krim, sementara lebih dari 50% responden mengetahui adanya bahan – bahan lain seperti telur, gula, krim kocok (whipping cream), pewarna makanan, dan perasa. Meskipun responden mengetahui adanya bahan tambahan baik dalam pembuatan es krim maupun cone itu sendiri, bagaimanapun juga mereka tetap yakin untuk megkonsumsi es krim dan cone tersebut. Karena hanya pada bahan – bahan tertentu dan dalam jumlah ang masih tergolong aman untuk kesehatan mereka, mereka tetap yakin untuk mengkonsumsinya, ketika tingat konsumsi keduanya dan frekuensi konsumsi ice cream cone pada jumlah yang terbatas. Meskipun ice cream cone merupakan bagian dari perilaku konsumen dalam konsumsi es krim di Semarang menempatkan bahwa responden jarang mengkonsumsimnya yaitu biasanya kurang dari 10 kali per bulannyapada situasi mereka sedang bersantai di mal. Level tingkat konsumsi seperti inilah yang tidak akan memberikan efek negatif yang nyata pada kesehatan. Perilaku ini yang akan membawa kepada tingkat kepercayaan konsumen yang kuat untuk mengkonsumsi ice cream cone.

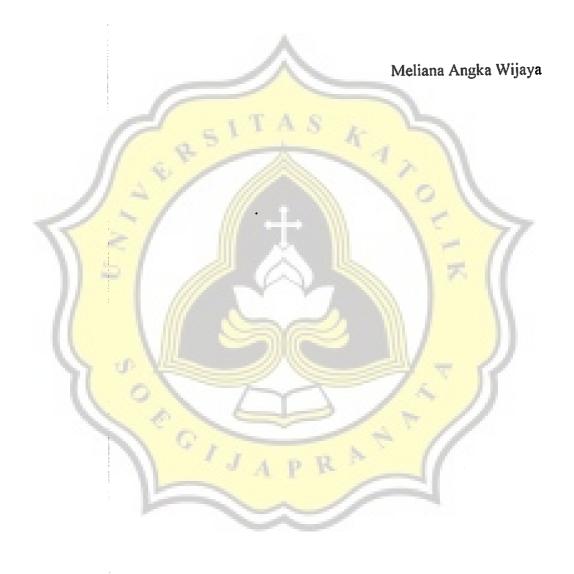
#### **PREFACE**

Thank God and all of the praise for HIM because of HIS blessing and mercy has been given so that this thesis can be completed successfully. This thesis explores whole lessons obatained at the Department of Food Technology, Faculty of Agricultural Technology, Soegijapranata Catholic University Semarang, and is aimed to fulfill the final requirement to finish the first academician degree-holder at the department.

This thesis will not be successfully finished if there were no invaluable guidance, encouragement, and helps from many parties. For that reason, the greatest thanks must be delivered to them. To Mr. Sumardi and Mr. Iwan Budiharjo, I thank for the guidance and encouragement. Mr. Sumardi, you done a great job and I'm so proud to be one of your students, may God bless you. To Mr. Probo Yulianto, thank for managing the thesis' administration, particularly at the rush time meeting the deadline. Of course I thank to all Food Technology Department of UNIKA Soegijapranata's lecturer and staffs for their education, help and service during any time at Food Technology Department. To my beloved family, Mom, Dad, Andy, and Henry, thank for their great support toward the making of this thesis. Especially for my pretty boy, Andre Hendrawan for his enormous support, his precious time and great devotion, particularly at the tiring time writing up the thesis. My two funny friends, Kristian Aditjondro and Welly Setiawan for helping me spread up the questioner, without you guys I can't make my dream come true. To Mia Mutiarani for sharing the same fate with me while working the thesis. To all my friends, generation of 2001 of Food Technology Department, Faculty of Agricultural Technology, Soegijapranata Catholic University Semarang and the entire respondents that make my wish come true for helping me to fulfill the given questioner. And for those who I can't mention their name one by one, thank for everything that helping me so much.

Finally, the writer can only pray to God, hope that all of these guidance, encouragement, and helps won't be useless and become useful to all of us. The writer realized that this thesis far-off perfect ness, that's why the writer appreciate for the critics and suggestions.

Semarang, July 2004



## TABLE OF CONTENTS

	Page
SUMMARY	i
RINGKASAN	ii
PREFACE	iii
TABLE OF CONTENTS	v
LIST OF TABLES	vii
LIST OF FIGURES	x
LIST OF APPENDIX	xii
TITAS:	
CHAPTER 1. GENERAL INTRODUCTION	1
1.1. Theoretical Background 1.2. Topic Determination and Limitations	1 7
1.3. Aim and Objectives	8
CHAPTER 2. METHODOLOGY OF THE RESEARCH	11
2.1. Time and Place of the Research 2.2. Sampling Method 2.3. Collecting Data	7 11 11 11
2.4. Sorting and Statistical Analysis 2.4.1. Chi-square Test	12
2.4.2. Kolmogorov Smirnov and Mann-Whitney Test	13
2.4.3. Kruskal Wallis Test	13
CHAPTER 3. RESULTS	14
3.1.Preliminary Survey	14
3.2.Respondent's Identifications 3.3.Background Understanding on Ice Cream and Cone	14 16
3.4 The Consumption on Ice Cream and Ice Cream Cone	30
3.5 Consumers Confidence on Ice Cream and Ice Cream Cone	40
3.6 Consumers Attitude on the Ice Cream Cone Consumption	44
CHAPTER 4. DISCUSSION	53
4.1 Consumers Understanding on Ice Cream and Ice Cream Cone	54
4.2 The Analysis on Consumer's Confidence	56
4.3. The Analysis on Consumer's Attitudes	59

# CHAPTER 5. CONCLUSIONS CHAPTER 6. REFERENCES APPENDIX



63



# LIST OF TABLES

	Page
Table 1. Typical Formula for Ice Cream	1
Table 2. The Respondent's Percentage about the Actual Ingredients on Ice Cream	15
Table 3. The Percentage of Respondents Responding on the Composition of	
Ice Cream of Respondents Categorized in Their Gender and Ages	16
Table 4. The Percentage of Respondents Responding on the References to	
Know the Composition of Ice Cream on Respondents Categorized	
in Their Gender and Ages	17
Table 5. The Percentage of Respondents Responding on the Respondents'	
Knowledge about the Materials Addition to Ice Cream of Respondents	
Categorized in Their Gender and Ages	18
Table 6. The Percentage of Respondents Responding on the Materials Addition	7/
to Ice Cream on Respondents Categorized in Their Gender and Ages	19
Table 7. The Percentage of Respondents Responding on the Differences between	۸.
Common Ice Cream and Ice Cream Cone on Respondents Categorized	) )
in Their Ge <mark>nder and</mark> Ages	20
Table 8. The Percentage of Respondents Explanation on the Differences between Common Ice Cream and Ice Cream Cone	21
Table 9. The Percentage of Respondents Responding on the Preferences between Common Ice Cream and Ice Cream Cone of Respondents Categorized in Their Gender and Ages	22
Table 10. The Percentage of Respondents Responding for Choosing Common Ice Creation on Respondents Categorized in Their Gender and Ages	am 24
Table 11. The Percentage of Respondents Responding for Choosing Ice Cream Cone on Respondents Categorized in Their Gender and Ages	25
Table 12. The Percentage of Respondents Responding on the Raw Materials of Cone on Respondents Categorized in Their Gender and Ages	26

Table 13. The Respondent's Percentage about the Actual Added Ingredients of Cone	26
Table 14. The Percentage of Respondents Responding on the Materials Addition to Cone as Well on Respondents Categorized in Their Gender and Ages	27
Table 15. The Percentage of Respondents Responding on the Materials Addition to Co on Respondents Categorized in Their Gender and Ages	one 28
Table 16. The Average of Ice Cream Consumption per Month of Respondents Categorized in Their Gender and Ages	30
Table 17. The Percentage of the Average of Ice Cream Cone Consumption per Month Respondents Categorized in Their Gender and Ages	on 31
Table 18. The Percentage of the Places to Buy Ice Cream Cone on Respondents  Categorized in Their Gender and Ages	32
Table 19. The Percentage of Respondents Responding on Why Choosing Mall as a Plato Buy Ice Cream Cone of Respondents Categorized in Their Gender and Ages	33
Table 20. The Percentage of Respondents Responding of Any Plan to Buy Ice Cream Cone on Respondents Categorized in Their Gender and Ages	34
Table 21. The Percentage of Respondents Responding on the Ice Cream Cone's Taste Respondents Categorized in Their Gender and Ages	on 35
Table 22. The Percentage of Respondents Responding on the Price of Ice Cream Cone Sale at the Mall on Respondents Categorized in Their Gender and Ages	that 36
Table 23. The Percentage of Respondents Responding on the Main Reason to Consum cream Cone on Respondents Categorized in Their Gender and Ages	ne Ice 37
Table 24. The Percentage of the Family Member Who Also Consume Ice Cream Con Respondents Categorized in Their Gender and Ages	e on 38
Table 25. The Percentage of Respondents Responding on the Respondents' Conception to Ice Cream on Respondents Categorized in Their Gender and Ages	on 39
Table 26. The Percentage of Respondent's Own Opinion to Ice Cream on Respondents Categorized in Their Gender and Ages	41
Table 27. The Percentage of Respondent's Confidence during the Cone Consumption	42
Table 28. The Percentage of the Conditions of Consuming Ice Cream Cone on Respondents Categorized in Their Gender and Ages	43

Table 29. The Percentage of Respondents Responding on Supposed Ice Consumption on Respondents Categorized in Their Gender and Ages	ream 44
Table 30. The Percentage of Respondents Responding on Supposed Cone Consumption on Respondents Categorized in Their Gender and Ages	n 46
Table 31. The Percentage of Respondents Responding whether if Consuming the Cone as Well on Respondents Categorized in Their Gender and Ages	47
Table 32. The Percentage on the Reason Why Always Consuming the Cone as Well on Respondents Categorized in Their Gender and Ages	48
Table 33. The Percentage of the Reason Why Not Consume the Cone as Well on Respondents Categorized in Their Gender and Ages	49
Table 34. The Percentage of the Reason Why Only for Sometimes Consuming the Cone as Well on Respondents Categorized in Their Gender and Ages	50
	7

# LIST OF FIGURES

	Page
Figure 1. Respondent's gender	14
Figure 2. Respondent's age	14
Figure 3. The Correctness of the Respondents' Knowledge about Ice Cream Composition	15
Figure 4. The References of Respondents Knowledge about the Composition of Ice Cream Cone	16
Figure 5. The Respondents' Knowledge about the Materials Addition to Ice Cream	17
Figure 6. The Correctness of Respondents' Knowledge about the Materials Addition to Ice Cream	18
Figure 7. The Responds of the Differences between Common Ice Cream and Ice Cream Cone	19
Figure 8. The Percentage of Respondents Explanation on the Differences between Common Ice Cream and Ice Cream Cone	21
Figure 9. The Percentage of Respondents Preferences between  Common Ice Cream and Ice Cream Cone	22
Figure 10. Reason for Choosing Common Ice Cream in Percentage Way	23
Figure 11. Reason for Choosing Ice Cream Cone in Percentage Way	24
Figure 12. The Raw Materials of Cone	25
Figure 13. The Respondents' Knowledge about the Materials Addition to Cone	27
Figure 14. The Correctness of Respondents' Knowledge about the Materials Addition to Ice Cream	28
Figure 15. The Monthly Average Consumption of Ice Cream	29
Figure 16. The Monthly Average Consumption of Ice Cream Cone	30
Figure 17. The Places to Buy Ice Cream Cone	31
Figure 18. Reason for Choosing Mall as a Place to Buy Ice Cream Cone	32
Figure 19. Planning to Buy Ice Cream Cone	33
Figure 20. The Explanation of Ice Cream Cone	34
Figure 21. The Responds about the Price of Ice Cream Cone that Sale at the Mall	35
Figure 22. The Main Reason to Consume Ice Cream Cone	36

Figure 23. The Family Member Who Also Consume Ice Cream Cone	37
Figure 24. The Respondents' Conception to Ice Cream	39
Figure 25. The Respondents' Own Opinion to Ice Cream	40
Figure 26. The Respondent's Confidence during the Cone Consumption	42
Figure 27. The conditions on Consuming Ice Cream Cone	43
Figure 28. The Supposed Consumption of Ice Cream	44
Figure 29. The Supposed Consumption of Cone	45
Figure 30. The Responds whether if Consuming the Cone as Well	47
Figure 31. The Reason Why Always Consuming the Cone as Well	48
Figure 32. The Reason Why Not Consume the Cone as Well	49
Figure 33. The Reason Why Only for Sometimes Consuming the Cone as Well	50

#### LIST OF APPENDIX

- Appendix 1. The Questioner Form
- Appendix 2. Summary of Respondent's Information
- Appendix 3. Chi-Square Test for Respondent's Information
- Appendix 4. Kolmogorov Smirnov, Mann-Whitney, and Kruskal Wallis Test per One Question Within Variable

