









### Menu-Safe Case Study: Changing Food Safety Knowledge, Attitude and Behaviour

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#### **Contents**

- In-depth research in UK
  - Barriers to HACCP in hospitality
  - Evaluation of a solution (Menu-Safe)
- MSc. research project in Dubai
  - "Do the barriers exist in Dubai and can they be overcome using Menu-Safe?"







#### Research in the UK

- Research question:
  - "What are the barriers to food safety management and HACCP in the catering and food service sector?"
- In-depth case studies (2002 2003)
  - Documentary analysis
  - In-depth psychological interviews







#### 21 Barriers Model

Pos. Reinforcement

Neg. Reinforcement

**Perceived Superiority** 

Motivation

Self-Efficacy

**Outcome Expectancy** 

Risk Awareness

Agreement

**Technical Expertise** 

Safety Knowledge

**Cueing Mechanisms** 

Management Control

Competence

Language Skills

Resources

**Operation Complexity** 

Operation Variability

**External Factors** 

**Enforcement Factors** 

**Guideline Factors** 

Internal Behavioural Barriers

External
Behavioural
Barriers

Knowledge/ Expertise Barriers

Attitude/

Psychological

**Barriers** 





#### Evaluation of a Solution

- The first draft of Menu-Safe was implemented between 2003 – 2004.
- The research was then repeated:
  - 6 months (2004)
  - 3 years (2007)
- This allowed an in-depth evaluation of potential changes in knowledge, attitude and behaviour.





#### Menu-Safe Evaluation

- Menu-Safe reduces or eliminates all barriers
- It allows hospitality businesses to implement HACCP
- It facilitates improvement in:
  - Knowledge,
  - Attitude
  - Behaviour







## Methodology

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- Methodology recommended by FAO / WHO for governments to evaluate interventions.
  - FAO/WHO (2006)
- PhD research given Special Commendation at International Management Research Awards.





## International Perspective

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- The barriers research has been replicated in Australia, Central America and Oman.
  - The same problems and challenges apply.
- An important question for Dubai:
  - Do the same barriers exist in Dubai, and can Menu-Safe overcome them?"







## A Masters Case Study

- Oct 2009: Preliminary data
- Dec 2009: Training & implementation
- Feb 2010: Interim results
  - Carrying out research before AND after can show potential changes in knowledge, attitude and behaviour.
- Data includes:
  - Documentary analysis
  - Interviews (business, trainer and inspector)







# Triangulation of Data







#### Narrative interview

- Flexible and adaptable
  - Open questions
  - Encourages stories
- Allows discovery of new ideas and concepts
- Needs skilled researcher
  - Trained in research methods and narrative interviewing







- Before training and implementation
  - Interviews
  - Documentary analysis
- Provides base-line data for comparison
  - The data must be analysed in great detail for Masters level research
  - Today I will simply share with you some simple examples for illustration







- Knowledge barriers
  - Lack of awareness
  - Lack of food safety knowledge
  - Lack of technical expertise

The employees don't have enough of an idea about food safety'

HACCP Sir?
What is that Sir?
This is hazardous Sir something like that?

Inspector

Chef







- Attitude Barriers
  - Lack of self-efficacy (confidence)
  - Does not agree that HACCP will work for restaurants

The biggest challenge for them is the confidence

When I looked on the internet - this hazard analysis is big thing and does it work for a restaurant?

Manager







- Behavioural barriers
  - No documented HACCP system in place
  - Practices required improvement

I found very basic documentation... Very poor temperature records and no more documents related to food safety.

They needed improvements like cleaning. The biggest thing was the cooling procedure.





- Business has been trained and started to implement Menu-Safe
  - Follow-up interviews conducted

- Research project will continue with further interviews and documentary analysis
  - Today I will present only 'interim results'





- Knowledge Improvements
  - Increased food safety knowledge and communication

They are training staff on food safety now, and talking about it, which they did not do before.







- Attitude Improvements
  - Confidence
  - Risk awareness

They are doing things with more awareness of food safety

I think confidence is the biggest improvement

Trainer







- Behavioural Improvements
  - Documents and records developed and used
  - Management involvement and teamwork

Before they are like separate but now they are working together a lot more

Now they have nearly finished the SOPs and they are recording every problem

**Trainer** 





#### Conclusion

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- Findings so far:
  - Barriers to 'classical HACCP' exist in hospitality businesses in Dubai
  - Menu-Safe can overcome them
  - New developments should always be researched and evaluated
  - In-depth case studies are a valuable way of testing whether previous studies have relevance in new areas







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