Impact of a digital campaign on students perceptions and attitudes toward food waste

Dr. Sarra JRIBI

Department of Agri-Food Industries, Institut National Agronomique de Tunisie, University of Carthage, Tunisia

November 4th, 2021
Established in 1898 under the dual supervision of the Ministry of Agriculture and the Ministry of Higher Education and Scientific Research. 350 students enrolled in the engineering cycle and 300 students enrolled between Masters and Doctorates. Work focuses on a wide range of topics related to **climate change and sustainable development issues**, including biodiversity, environment, functioning and engineering of natural and cultivated ecosystems, marine ecosystem, water, animal production, and agri-food sciences and technology.
Plan

1. Background
2. Aim
3. Methodology
4. Results
5. Conclusion
Plan

1. Background
2. Aim
3. Methodology
4. Results
5. Conclusion
Background

About **1.3 billion tons** of food are **wasted** globally each year.

One **third of all food** produced for human consumption.

The global full **costs of food wastage** amount to about **2.6 trillion USD per year:**
- USD 700 billion of environmental costs
- USD 900 billion of social costs.
Background

- Hunger (more than 1 in 10 people)
- Demographic growth
- Economical impact
- Environmental impact
Background

• Food waste affects 12% of the food prepared in **hotels** and 16% of meals in **restaurants** (INC, 2016).

• In **Tunisian University canteens**, 83% of managers stated to have **witnessed food wastage** in their establishments, where 6% of the served meals were **thrown away**.

• In order to develop and **implement awareness, education programs and policies to reduce food waste**, it is necessary to **estimate food waste** level and its drivers.
Background

Strategies?

Awareness

Prevention

Green policy

Waste management
Background

Most affected

Youth consumers

Tomorrows leaders

Main social media users
Aim

This research aimed assessing the impact of a digital sensibilisation campaign on students perception and attitude toward food waste.
Plan

1. Background
2. Aim
3. Methodology
4. Results
5. Conclusion
Methodology

1. Assessment of food waste levels

• An online survey based on a structured questionnaire, was conducted to assess information on students’:

  • food purchase behavior,
  • awareness and attitudes towards food waste,
  • self-estimation of food waste
Methodology

2. Sensibilisation campaign

June-August 2020

10 Posters

Online
- 1 Poster/3 days

University Facebook groups

Canteen

Entry/inside
Methodology

2. Sensibilisation campaign
Methodology

3. Evaluation of sensibilisation campaign

- Evaluation
  - Online survey
    - Opinions the campaign
  - Campaign metrics
    - Future trends
Plan

1. Background
2. Aim
3. Methodology
4. Results
5. Conclusion
Results

Current trends of students

- I will stop food waste: 17%
- I will reduce food waste: 55%
- I will keep my current habits: 28%
Main motivations for changing behavior

- Ethical reasons: 25.9
- Economical reasons: 25.63
- Religious reasons: 25.35
- Ecological reasons: 23.1
## Results

### Campaign metrics

<table>
<thead>
<tr>
<th>Target</th>
<th>Number of members group</th>
<th>Total number of view</th>
<th>Average of view per publication</th>
<th>Number of interactions</th>
<th>Average of interaction per publication</th>
</tr>
</thead>
<tbody>
<tr>
<td>« Inat students »</td>
<td>1806</td>
<td>10039</td>
<td>1003.9</td>
<td>207</td>
<td>20.7</td>
</tr>
<tr>
<td>« Cité universitaire les Jardins »</td>
<td>167</td>
<td>1145</td>
<td>114.5</td>
<td>51</td>
<td>5.1</td>
</tr>
<tr>
<td>Canteen official page</td>
<td>502</td>
<td>809</td>
<td>80.9</td>
<td>30</td>
<td>3</td>
</tr>
</tbody>
</table>
Results

Campaign metrics

Key Performance Indicators (KPI)

<table>
<thead>
<tr>
<th>KPI</th>
<th>Number of view (%)</th>
<th>Interactions (%)</th>
<th>Negatif feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>48.5</td>
<td>2.5</td>
<td>0</td>
</tr>
</tbody>
</table>

Number of groups

Average engagement rate (<5%)
Results

Evaluation of the campaign: Online survey

- **Global appreciation**: 3.95
- **Informations clarity**: 4.11
- **Graphical design**: 4.06
Results

Evaluation of the campaign: Online survey

Evaluation of food waste rate at university canteen

- Shocking: 72%
- Fair: 25%
- Weak: 2%
- No opinion: 1%
Results

Evaluation of the campaign: Online survey

Trends of respondents post sensibilisation campaign

- I will keep my current habits
- I will reduce food waste
- I will stop food waste

27% kept their current habits, 64% will reduce food waste, and 9% will stop food waste.
The use of social media and digital tools would be recommended to rise students awareness

Positive impact on future trends

Need of quantitative measurments
THANK YOU!

Institut National Agronomique de Tunisie
Marouen Rezgui
Hajer Debbabi
Hanen Ben Ismail
Institut National de la Consommation
Darine Doggui