Intrinsic Motivation of Trained Panelists

Veronika Jones, Fonterra Research Centre, Palmerston North, NZ

Cynthia Lund, HortResearch, Auckland, NZ
Trained panelist motivation is an important factor to consider in sensory evaluation

Limited knowledge about panelist motivation within sensory science

Application of motivation research from psychology, education and sport science fields to sensory science
Purpose of Research

- What were the initial and subsequent drivers that motivated people to become and remain trained panelists?
- Are trained panelists extrinsically or intrinsically motivated?
- What differences in motivation were found between external panelists and internal panelists?
- What differences in motivation were found between new panelists and experienced panelists?
Survey #1

- What factors inspired people to become panelists and what factors motivated them to remain panelists

- Seven trained panels were surveyed (n= 74). Panelist age ranged from 25 to 65 years, and trained panel experience ranged from 1 year to more than 10 years.

- The panelists were presented with a range of intrinsic and extrinsic factors and asked to rank them in order of importance
Survey #1 - Results

Most Important

Factor

Least Important

- I enjoy it
- Extra income
- General interest in foods
- Social interaction
- Feel it's something I can do well
- Interest in new foods
- Intellectual stimulation
- Applies my skills to promote research
- Someone recommended it
- Friend/family is/was as a panelist
- Prestige for being recognised as a professional taster
Survey #2 - IMI

- Measured trained panelists’ intrinsic motivation using Intrinsic Motivation Inventory (IMI)

- IMI is a method of gauging a participants’ interest/enjoyment, perceived competence, value/usefulness, felt pressure and tension, and perceived choice while performing a given activity
  - Deci and Ryan (1985, 2000)

- The IMI items are often modified slightly to fit specific activities (such as participating in a trained panel)

For each of the following statements, please indicate how true it is for you.

4. While I’m doing panel work, I think about how much I enjoy it

<table>
<thead>
<tr>
<th>not at all true</th>
<th>somewhat true</th>
<th>very true</th>
</tr>
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<tbody>
<tr>
<td>1</td>
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5. I do not feel at all nervous about doing panel work

<table>
<thead>
<tr>
<th>not at all true</th>
<th>somewhat true</th>
<th>very true</th>
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6. I believe this panel work is of some value to me

<table>
<thead>
<tr>
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7. I think I am pretty good at panel work

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Survey #2 – Results

- Factor analysis showed that there were four main factors:
  - Factor 1 (29.2%) - *Interest* and *value* had the largest influence on panelist’s intrinsic motivation
    > *Interest* and *value* are usually the most important parameters that sustain intrinsic motivation (McAuley et al., 1989).
  - Factor 2 (17.4%) - *choice*
  - Factor 3 (14.2%) – *competence*
  - Factor 4 (8.4%) - *pressure*

*Seven trained panels were surveyed, comprising panelists working for five companies/universities in four countries (n=108).*
Internal vs. External panelists

- Compared to internal panelists, external panelists found panel work:
  - more *interesting*
  - more *fun*
  - more *enjoyable*
  - felt that panel work had more *value* and was more *beneficial* to them
  - external panelists thought they were *better at their work* and more *skilled* than internal panelists

- These are all feelings that may contribute to higher quality of data and pride in their work
Internal vs. External panelists

- Compared to external panelists, internal panelists felt they had less *choice* about doing their job (panel work) than external panelists did.

- This result might be a consequence of their mandatory conditions of employment:
  - Lack of choice reduces their perceived autonomy and may contribute to a decrease in their intrinsic motivation.
Years of Experience – Key Trends

1 year or less
- lower opinion of their personal competence and satisfaction with their performance compared to other experience levels

2-4 years
- no significant concerns

5-7 years
- enjoyed their jobs the least compared to other panelists (but still felt competent)

Need to focus on giving new panelists the skills required to build their competence

Need to make the job interesting and give panelists variety to increase job enjoyment
Years of Experience – Key Trends

8-10 years
- felt *skilled* at panel work and were more *satisfied with their performance* compared to panelists with less experience
- less likely to agree that panel work was of some *value* to them and that it was *beneficial* to them

>10 years
- felt they were the most *skilled* at panel work and that they *did their job well* compared to all other experience levels
- most likely to agree that panel work was of some *value* to them and that it was *beneficial* to them

Focus on helping more experienced panelists understand the value of their work
Conclusions

- Intrinsic, as well as extrinsic, motivation is important to panelists.

- Panelist experience and type of panel (internal/external) play a role in panelist motivation.

- Panel leaders can foster intrinsic motivation by:
  - hiring panelists who are competent people (i.e. sensory acuity, follow instructions, don’t make simple mistakes, listen, sensitive to group dynamics)
  - by creating a panel environment in which panelists understand the relevance of their work to the business
  - allow panelists to experience freedom and choice in what they do (nature of job does not allow for this, how do you build it in?)
Cooking Up Improved Intrinsic Panelist Motivation

Our Recipe for Success

Candi Rathjen-Nowak, General Mills
Minneapolis, MN
From Candi’s Kitchen

1 Part ENLIGHTENMENT
2 Parts COLLABORATION
3 Parts BUSINESS CONNECTION
1 Part INSIGHT
4 Parts ACTION
A Dash GOOD FORTUNE
1 Part PERSERVERANCE

Combine in the right order, watch closely, stir as needed
1 Part ENLIGHTENMENT

We Need the IMI

53% at Risk
2 Parts COLLABORATION

Yea, we have more data for our research!!!

Yea, we can measure panel motivation!!!

Veronika  Candi
3 Parts BUSINESS CONNECTION

- Externally Sourced Knowledge
- Trade-off/Risk Assessment
- Quantitative Climate Assessment

IMI
1 Part INSIGHT

Deviation from Set Benchmark

2007 GMI DAP IMI Results

- Choice: 0.8
- Pressure: 0.4
- Interest: 0.3
- Competence: 0.2

Key Opportunity: Value
## Deviation from Set Benchmark

### 2007 GMI DAP IMI Value Results

<table>
<thead>
<tr>
<th>I believe this panel work is of some value to me</th>
<th>I am willing to do this panel work because it has some value to me</th>
<th>I believe doing panel work is beneficial to me</th>
<th>I think this is an important job</th>
</tr>
</thead>
<tbody>
<tr>
<td>-0.2</td>
<td></td>
<td>0.3</td>
<td>0.3</td>
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</table>

**Opportunity Knocks**
4 Parts ACTION

- GMI Technical Community Education
- Two-Way Feedback
- Organizational Event Inclusion
- Changing Corporate Policies
A Dash GOOD FORTUNE

Deviation from Set Benchmark
GMI DAP Year over Year IMI Value Results

Woo Hoo!!!

Value 2007

Value 2008

0

0.3
Focused Efforts Pay Off

Deviation from Set Benchmark
2008 GMI DAP IMI Value Results - Veterans

I believe this panel work is of some value to me
I am willing to do this panel work because it has some value to me
I believe doing panel work is beneficial to me
I think this is an important job
In More Ways Than One

Deviation from Set Benchmark
- 2007 GMI DAP IMI Results
- 2008 GMI DAP IMI Results - Veterans

Top 3 factors affecting intrinsic motivation are on the rise!!!

Choice: 0.8, 0.9
Pressure: 0.4, 0.3
Interest: 0.3, 0.4
Competence: 0.2, 0.1
Value: 0, 0.3
1 Part PERSISTENCE

Deviation from Set Benchmark

- 2008 GMI DAP - Veterans
- 2008 GMI DAP - 1 yr Panelists

Our Work is Never Done!!!
From Candi’s Kitchen

1 Part  ENLIGHTENMENT
2 Parts COLLABORATION
3 Parts BUSINESS CONNECTION
1 Part  INSIGHT
4 Parts  ACTION
A Dash GOOD FORTUNE
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Combine in the right order, watch closely, stir as needed, ENJOY!