

## Attachment 3 - Non-innovators Cognitive Testing Interview Protocol

### **Introduction**

[To be given by NSF representative if present, or Westat interviewer if NSF is not available]

Hello, we are [introduce attendees from NSF, Westat].

The National Science Foundation (NSF) is in the process of developing a survey to understand what kind of external and internal factors can affect the ability of small and medium sized businesses in the U.S. to innovate.

The survey is currently in the design phase. Today, we would like to ask questions about your company and get your opinions about some questions -- what you think the questions are asking for, whether these questions are relevant for your company, and how easy or difficult it is to answer them and why. There are no right or wrong answers.

We would like to record this interview so that we have all your comments. Would that be okay?  
[Have respondents read and sign consent forms.]

### **Background**

Please tell me, in 1-2 sentences, what your company does. [If respondent does not mention, ask about the company's goods and services.]

Tell me what innovation means to you.

Some companies consider themselves innovative while others say it not a priority and companies have a variety of reasons for both. Do you think of your company as an innovative company or not as an innovative company?

Has your company considered making any major changes to the goods or services your company offers?

[IF YES]What has your company considered?

What, if anything, do you expect to come out of that?

[IF NO] What has prevented your company from doing so?

Has your company considered making any major changes in its processes, such as marketing or manufacturing?

[IF YES]What has your company considered?

What, if anything, do you expect to come out of that?

[IF NO] What has prevented your company from doing so?

What do you see as the biggest external factors that affect your company?

What do you see as the biggest internal factors that affect your company?

What do you consider to be the biggest challenges your company faces in the current economy?

What major changes, if any, have your competitors made that your company has faced?

[IF APPLICABLE]: What impact have changes from competitors had on your company?

What actions, if any, has your company taken to respond to those changes?

What major changes, if any, have there been in what your customers expect?

[IF APPLICABLE]: What impact have changes in customer expectations had on your company?

What actions, if any, has your company taken to respond to those changes?

### **Innovation and factors affecting it**

Now I would like to discuss innovation and factors that can impact innovation. More specifically, I would like to ask you some questions about how different factors can or cannot affect your company's ability to innovate.

Please answer the following question [USE ATTACHMENT 3A].

During the three years 2015 to 2017, how important were the following factors in preventing this business from innovating?

- A. Lack of internal finance
- B. Lack of credit or private equity
- C. Innovation costs too high
- D. Lack of skilled employees within the business
- E. Lack of collaboration partners
- F. Difficulties in obtaining government grants or subsidies
- G. Uncertain market demand for your ideas
- H. Too much competition in your market
- I. Legislation/regulation that generated excessive burden
- J. Legislation/regulation that created uncertainty
- K. Legislation/regulation that lacked consistency across the United States

- In your own words, what do you think this question is asking you?

- What does innovating mean to you in the context of this question?
- To you, what does “preventing this business from innovating” mean?
- What time period were you thinking of when you answered this question? How easy or difficult was it to think of factors in this time period only?
- How did you decide which boxes to check?
- I noticed you noticed you spent a lot of time thinking before you answered this question/line, can you tell me about that?
- Which parts of this question were the most difficult to answer? Why?
- Which parts of this question were easiest to answer? Why?
- Which parts of this question, if any, were not relevant for your company? Why?
- Do these items get at the real reasons why companies do not innovate? What other reasons should be added to the list?
- [If there are external or internal factors that the respondent mentioned previously please bring them up here] Previously you mentioned [note respondent’s previous response]. Do any of the options listed address this factor? If so, which one? If not, do you think it should be included?

**Reasons for not innovating**

Again, I would like to ask your thoughts on another question.

[USE ATTACHMENT 3B]

How important were the following reasons for this business not to conduct innovation activities during the three years 2015 to 2017?

- A. Low demand for innovations in your market
- B. No need to innovate due to previous innovation
- C. No need to innovate due to very little competition in the business’s market
- D. Lack of good ideas for innovations
- In your own words, what do you think this question is asking you?
- What does innovation activities mean to you in the context of this question?

- What time period were you thinking of when you answered this question? How easy or difficult was it to think of factors in this time period only?
- How did you decide which boxes to check?
- I noticed you noticed you spent a lot of time thinking before you answered this question/line, can you tell me about that?
- Do you think this question is asking something different from the previous question or are they the same? Why?
- Which parts of this question were the most difficult to answer? Why?
- Which parts of this question were easiest to answer? Why?
- Which parts of this question, if any, were not relevant for your company? Why?
- Are there other reasons, that are not included, that affected your company's ability to innovate?
- Do these items get at the real reasons why companies do not innovate?

Thank you

ATTACHMENT 3A

During the three years 2015 to 2017, how important were the following factors in preventing this business from innovating?

	Very Important	Somewhat Important	Not at all Important
A. Lack of internal finance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Lack of credit or private equity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. Innovation costs too high	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. Lack of skilled employees within the business	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. Lack of collaboration partners	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. Difficulties in obtaining government grants or subsidies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G. Uncertain market demand for your ideas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H. Too much competition in your market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I. Legislation/regulation that generated excessive burden	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
J. Legislation/regulation that created uncertainty	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
K. Legislation/regulation that lacked consistency across the United States	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ATTACHMENT 3B

How important were the following reasons for this business not to conduct innovation activities during the three years 2015 to 2017?

	Very Important	Somewhat Important	Not at all Important
A. Low demand for innovations in your market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. No need to innovate due to previous innovation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. No need to innovate due to very little competition in the business's market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. Lack of good ideas for innovations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>