Question 1 (4 points)

The questions on this page are based on the following text, adapted from Ofe, H., Minnema, H., & de Reuver, M. (2022). The business value of privacy-preserving technologies: the case of multiparty computation in the telecom industry. Digital Policy, Regulation and Governance, (ahead-of-print).

*We constructed a framework on the business value of privacy-enhancing technologies (PETs). We evaluated the framework through semi-structured interviews with experts. The semi-structured interviews involved open questions to stimulate discussions that could enrich the framework. Because experts may have different levels of expertise, we provided a general explanation of what MPC is. Experts were asked to provide insights into (1) how/why MPC might affect their organization; (2) What impact of MPC would be most important for their company; (3) Which aspects were missing or should be excluded from the framework. The authors jointly analysed the interview data. For example, the second author performed the initial interpretation, which the first author subsequently checked.*

1a. According to the text above, the authors used multiple tactics to improve the rigor of the study. Mention two tactics based on the text. For each tactic, explain why it contributes to rigor. (2 points) (100 words)

Answer:

* Tactic 1: Providing a **general explanation of what MPC** is (0.5 points).
* This helps because answers of experts **can be compared** (0.5 points) OR the error made in the definition of MPC **is the same for each interview** (0.5 points)
* Tactic 2: Interpretation was **checked by another author** (0.5 points)
* The conclusions/interpretation/analysis is **more likely to be similar/replicable** if another researcher would analyse the data (0.5 points)
* Various alternative answers are possible as long as the student mentions a specific tactic (mentioned in the abstract) *and* discusses how this tactic contributes to rigor
  + Semi-structured interviews, which make the study a bit more systematic (1 point, only if both the tactic and the explanation are provided)
  + Using a framework makes the study a bit more systematic (1 point, only if both the tactic and the explanation are provided)
  + Semi-structured interviews give freedom to interviewee, thus leading to a richer framework (1 point)
  + By selecting experts, the quality of the data collected is higher (1 point)
* Not correct: Only mentioning an alternative tactic in a circular way (e.g. open questions lead to an open discussion; interviewing experts means that expert opinions are collected)

1b. In a follow-up study, the authors investigate if businesses that use MPC have higher profit levels than businesses that do not. For the businesses in their sample, they find a correlation between the usage of MPC and profit level. They also have a good explanation for this, derived from their framework. What are the other conditions for causality, and what does this mean for this particular study? (2 points) (80 words)

Answer:

* IV should **precede** the DV (0.5 point): **usage of MPC should come before the profits increase** (0.5 point)
* **No other factor** should cause a change in the DV (0.5 point): there should **not be another cause of increased profits** (0.5 point)

Question 2 (3 points)

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The authors present the following quotations in their paper.

*“MPC could lead to more personalized services. The more information companies have from a person, the more they can provide a personal service”*

*“the biggest impact will be addressing specific target markets or specific consumers. It would be great to target geographical areas where we don’t have a large market share with specific products”*

*“Why targeting is important? Suppose companies can provide consumers with the needs they deem relevant. It is possible to bind a consumer to our company. A satisfied consumer will not easily switch to another provider. Brand loyalty is a term that is used in this context.”*

*“To combine [our insights on the market] with [the insights of] other organizations and work together with them. Marketing as well marketing campaigns and we could even produce new services and new products or play into trends.”*

2a. Propose two codes that cover (part of) the quotations. (2 points) (10 words)

Answer:

* A code consisting of max 2 words that corresponds with the quotations (1 point)
* A code consisting of max 2 words that corresponds with the quotations, which is substantially different from the first code (1 point)
* Note: The codes should be somehow about the impact of MPC on the organization (as per the goal stated in the abstract)

Examples: Personalization; targeting / more focused targeting; loyalty/binding; new services / new joint products/services/marketing; customer satisfaction

2b. Propose a category. (1 point) (10 words)

Answer:

* 1-2 words that cover the two codes provided as answer to 2a (1 point)

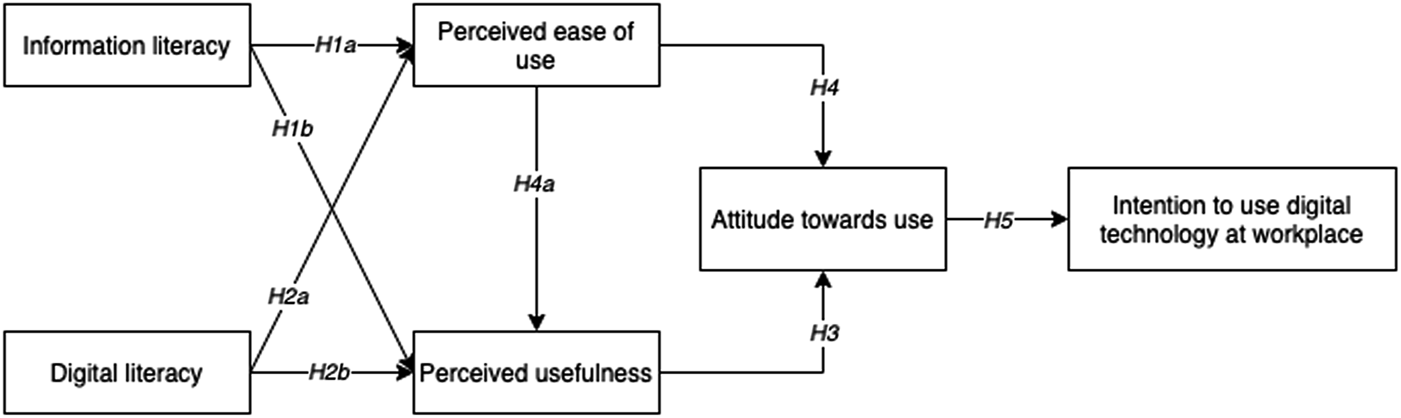
Examples: Business value; New markets/offerings; Marketing

An often-made mistake is to choose an antecedent or consequence of the two codes

Question 3 (3 points)

The questions on this page are based on the following text, adapted from Nikou, S., De Reuver, M., & Kanafi, M. M. (2022). Workplace literacy skills—how information and digital literacy affect adoption of digital technology. Journal of Documentation, 78(7), 371-391.

*Information and digital literacy have recently received much interest, and they are being viewed as critical strategic organisational resources and skills that employees need to obtain in order to function at their workplaces. Yet, the role of employees' literacy seems to be neglected in current literature. This paper aims to explore the roles that information and digital literacy play on the employees' perception in relation to usefulness and ease of use of digital technologies and consequently their intention to use technology in the practices they perform at the workplace.*



3a. The authors present a diagram with their hypotheses, see above. Formulate a mediation hypothesis that covers digital literacy and attitude towards use. Your hypothesis should be in line with the diagram (1.5 points) (30 words)

Answer:

* A mediation hypothesis that links digital literacy to attitude towards use, mediated through perceived usefulness (1.5 point)
* The hypothesis should be a statement, not a question
* Example: The impact of digital literacy on attitude towards use is mediated through perceived usefulness

3b. The authors wonder whether the type of work matters for the causal relations that they examine. There may be a difference between people that work with a computer all day, and those that do not. Formulate a moderation hypothesis to examine this, which is in line with the diagram. (1.5 point) (30 words)

Answer:

* A moderation hypothesis that has `type of work’ as a moderator for any of the hypotheses in the diagram (1.5 point)
* Example: The impact of perceived ease of use on attitude towards use is stronger for people that work with computers all day

Question 4 (4 points)  
The questions on this page are based on the following text, adapted from Nikou, S., De Reuver, M., & Kanafi, M. M. (2022). Workplace literacy skills—how information and digital literacy affect adoption of digital technology. Journal of Documentation, 78(7), 371-391.

*Information and digital literacy have recently received much interest, and they are being viewed as critical strategic organisational resources and skills that employees need to obtain in order to function at their workplaces. Yet, the role of employees' literacy seems to be neglected in current literature. This paper aims to explore the roles that information and digital literacy play on the employees' perception in relation to usefulness and ease of use of digital technologies and consequently their intention to use technology in the practices they perform at the workplace.*

*Digital literacy is defined as the ability to use information and communication technologies to find and evaluate information. Information literacy is defined as the ability to locate, evaluate, assess, and use information to make decisions.*

4a. Formulate a semantic differential item to measure digital literacy. Provide the question wording and the answer categories (2 points). (30 words)

Answer: A questionnaire item in line with the definition (1 point) with two antonyms as extreme ends of the answer scale (1 point)

The item should not have the word `literacy’ in it

Example: How do you assess your ability to use ICT for processing information? Unable – Able

4b. Based on the definitions provided, do you expect that discriminant validity will be a problem in this study? Motivate your answer. (2 points) (60 words)

Answer: Yes, the **definitions** of digital literacy and information literacy **are related** (1 point), so probably **the items in the scales / measures will be correlated** (1 point).

Alternative: No, the definitions are unrelated (1 point), so the items/measures will not be correlated (1 point)

Question 5 (4 points)   
The questions on this page are based on the following text, adapted from Nikou, S., De Reuver, M., & Kanafi, M. M. (2022). Workplace literacy skills—how information and digital literacy affect adoption of digital technology. Journal of Documentation, 78(7), 371-391.

*Information and digital literacy have recently received much interest, and they are being viewed as critical strategic organisational resources and skills that employees need to obtain in order to function at their workplaces. Yet, the role of employees' literacy seems to be neglected in current literature. This paper aims to explore the roles that information and digital literacy play on the employees' perception in relation to usefulness and ease of use of digital technologies and consequently their intention to use technology in the practices they perform at the workplace.*

At the end of the paper, the authors write about the limitations of the study:

*The participants studied in this study are assumed to have a high degree of DL and IL skills. We recommend that future study include other participants with lower or higher literacy skills who may demonstrate different behaviours on the causal relationships proposed in the causal diagram. Further studies could examine how other socio-demographic factors influence the employee's decision to use digital technologies in their workplaces.*

5a. How could stratified sampling help in such a future study? (1 point) (60 words)

Answer: Strata could be defined such that low/high skills / certain demographics are equally **represented** in the sample (1 point)

5b. What could be strata in a future study? (1 point) (20 words)

Answer: Low skills / high skills (1 point). **Values** of other socio-demographic variables are correct as well.

5c. In addressing the limitation described above, would it help to increase the power of the study? Why (not)? (2 points) (60 words)

Answer: No, because the power is related to **statistical generalization / inference** (1 point), and **does not resolve a** **non-representative** sample / that there are confounding **factors that are not taken into acount** (1 point)

Note that both power needs to be explained (1 point) and it needs to explained that this does not resolve the limitation(s) (1 point)

Incorrect: Only stating that power equals a larger sample size, since there are other ways to increase power

Question 6. (3 points)

The questions on this page are based on the following text, adapted from Geissdoerfer, M., Santa‐Maria, T., Kirchherr, J., & Pelzeter, C. (2022). Drivers and barriers for circular business model innovation. *Business Strategy and the Environment*.

*Circular business model innovation (CBMI) is a complex organizational challenge that faces multidimensional barriers. This article aims to address the following research question: What are the drivers and barriers for circular business model innovation?*

6a. Please explain whether this research question points to descriptive, exploratory or explanatory research. (1 point) (30 words)

Answer: **Explanatory** (0.5 point) since the terms of **drivers/barriers** point to **causes** of (not) innovating (0.5 point)

Alternative correct answer:

* Exploratoryas the study is about why CBMI does / does not happen // how the occurrence of CBMI can be explained // as study is about discovering new factors (1 point)
* Descriptive as the study will produce **deeper insights** into what the barriers/drivers are (1 point)

6b. Formulate a research objective that corresponds to the research question (1 point) (20 words)

Answer: A research objective that makes clear the **deliverable** of the study and that is **in line with the research question** (1 point). Example: Create a list of / Identify / Find drivers and barriers for CBMI.

6c. In a follow-up study, the authors want to investigate whether circular business model innovation increases profits. They intend to do an explanatory study. Provide a research question for this follow-up study. (1 point) (20 words)

Answer: What is the impact of CBMI on profits? (1 point)

Question 7. (6 points)

The questions on this page are based on the following text, adapted from Geissdoerfer, M., Santa‐Maria, T., Kirchherr, J., & Pelzeter, C. (2022). Drivers and barriers for circular business model innovation. *Business Strategy and the Environment*.

*Circular business model innovation (CBMI) is a complex organizational challenge that faces multidimensional barriers. This article aims to address the following research question: What are the drivers and barriers for circular business model innovation?*

*Cases were identified based on desk research and contacts. Our unit of analysis is the firm, and each firm offered one CBMI. Data were collected through interviews with experts in the circular business that had in-depth knowledge of the case (e.g., CEO, sustainability manager, innovation manager and product developer). We applied a purposive sampling strategy accounting for 21 cases.*

*Data from interviews were complemented with on-site visits to facilities, publicly available information(e.g., company reports and corporate websites) and researcher field notes. The interview protocol was designed to be flexible, including several open-ended questions.*

*In the first step, interview records were transcribed; all the qualitative data sets were inductively coded. After the initial open coding, an axial coding exercise was done. Finally, a theoretical coding exercise allowed us to deductively cluster drivers and barriers into categories, guided by previous descriptions and categorizations from the literature, most relevantly adapting the categorisation of the comprehensive review of Tura et al. (2019).*

7a. Triangulation is important in case study research. Which three forms of triangulation were used by the authors? List each type of triangulation *and* describe the activity that the authors did in this specific study to achieve that form of triangulation (3 points) (120 words)

Answer:

* Triangulation **between data sources** (0.5 points): interviewing **people with different roles / comparing public –private info / different time points** (0.5 points for mentioning at least one)
* Triangulation **between data collection methods** (0.5 points); complementing interviews with **on-site visits / public info / field notes** (0.5 points for mentioning at least one of these)
* Triangulation with **theory/literature** (0.5 points); **comparing** the results with the **categorization from literature / Tura et al** (0.5 points)

7b. The authors went for a holistic case study design. An alternative would have been embedded case design. What would this change in the description above? (1 point) (40 words)

Answer:

* Selecting multiple CBMI initiatives/projects per firm (1 point) OR The unit of analysis changes from firm to project/initiative (1 point) OR Selecting multiple firms that are part of the same group/cluster (1 point) Max 1 point
* Only stating that the unit of analysis would change (0.5 point)

7c. A well-known critique is that case study findings are difficult to generalize. Explain whether a replication logic for the case selection would help to address this critique (1 point) (30 words)

Answer:

* This could help because it is **easier to compare the findings between similar cases** [in case of literal replication]
* This could help because it is **easier to understand in which contexts findings are valid** [in case of theoretical replication]
* This would not help because there is **a lower variety of cases** [in case of literal replication]
* This would not help as it mainly **contributes to internal validity** [in case of theoretical replication]

Incorrect:

* More cases lead to higher generalizability (this is not specific for the replication logic)
* Case studies cannot be generalized (analytical generalization is possible through replication logic)
* Often made mistake: Confusing replication logic with replicability or replication or repetition

7d. What would change in the research design (as described above) if a replication logic was followed? (1 point) (30 words)

* **Similar / dissimilar firms / cases would be selected** (1 point)
* More conscious decisions / explanation about the selection of cases (1 point)

Question 8. (3 points)

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8a. Describe in your own words what was likely done in the axial coding exercise. (1 point) (30 words)

Answer: Categorizing / combining / merging codes (1 point)

8b. The authors write about inductive coding in the first step. What would an alternative to this? (1 point) (30 words)

Answer: **Deductive** approach / starting with an (initial) **codelist** (based on the literature) (1 point)

8c. What would the alternative that you described under question 8b imply for the overall setup of the study? (1 point) (30 words)

A practical implication, e.g. A **codelist** would have to be developed, **before starting the analysis** (1 point)

A reflection on implications for validity, e.g. Bias / premature closure / overlooking new ideas in the data

Some students gave this answer already under 8b (1 point)

If students give the wrong answer under 8b, but make a consistent implication under 8c, full points are awarded.