

# **Research in Hospitality Management**



ISSN: (Print) (Online) Journal homepage: www.tandfonline.com/journals/rrhm20

# The Delphi technique: a tutorial

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**To cite this article:** Victoria Naisola-Ruiter (2022) The Delphi technique: a tutorial, Research in Hospitality Management, 12:1, 91-97, DOI: <u>10.1080/22243534.2022.2080942</u>

To link to this article: <a href="https://doi.org/10.1080/22243534.2022.2080942">https://doi.org/10.1080/22243534.2022.2080942</a>

| 9         | © 2022 The Author(s). Co-published by NISC<br>Pty (Ltd) and Informa UK Limited, trading as<br>Taylor & Francis Group |
|-----------|--|
|           | Published online: 06 Jun 2022.   |
|           | Submit your article to this journal $oldsymbol{G}$   |
| ılıl      | Article views: 1848  |
| Q         | View related articles 🗗  |
| CrossMark | View Crossmark data ☑  |
| 4         | Citing articles: 2 View citing articles 🗹  |

Research in Hospitality Management 2022, 12(1): 91–97 https://doi.org/10.1080/22243534.2022.2080942

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**TUTORIAL** 

# The Delphi technique: a tutorial



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ABSTRACT: The Delphi technique is a recognised research technique designed as a futures-oriented methodology that gathers data by engaging a panel of experts to make judgements on a specific real-world issue. The technique enables the researcher to interact with key stakeholders and decision makers in the field, who are well experienced and trained in the specialised area of knowledge related to the target issue of the research, enabling researchers to gain a deeper understanding of real-world opinions. The Delphi technique has been described as a qualitative, quantitative and mixed methods approach as the collection of narrative group opinion, coupled with the strictly structured nature of the process and quantitively described results, poses a challenge to situate the approach in a specific methodological category and its usage. This methods tutorial discussion aims to illustrate the usage of the Delphi technique by providing a worked example to demonstrate the proposed method in a hospitality industry setting.

KEYWORDS: experts, future oriented, HR, hospitality industry, research approach

#### Introduction

The Delphi technique can be understood as an anonymous iterative process of expert judgments on a specific issue, with the aim of collecting consensus and dissent in the judgments and justifications (Ab Latif et al., 2016). Therefore, the Delphi method can be defined as a comparatively highly structured group communication process in which coarse facts are judged by experts about the uncertain and incomplete knowledge that exists (Jeste et al., 2010). The aim of the Delphi method is to combine the knowledge of several experts to come to a future prognosis (Ab Latif et al., 2016; Robertson et al., 2017). The rationale is that several experts can give a better prognosis than a single expert. Creswell (2007) and Skulmoski et al. (2007) suggest that it is the knowledge, experience and background of the panellists that makes them experts in a Delphi study. This assumes that experts in their field can give valuable insights about future developments (Keeley et al., 2016). The Delphi technique has been described as a qualitative, quantitative and mixed methods approach as the collection of narrative group opinion, coupled with the strictly structured nature of the process and quantitively described results, poses a challenge to situate the approach in a specific methodological category. However, the Delphi method is mostly used as a multi-level qualitative method using a series of rounds of data collection in a highly structured group interaction.

According to Sobaih et al. (2012), the experts' explanations are particularly beneficial in qualitative research studies and enhanced by the iterative and consensual nature of the three stages of a Delphic study (initial, core and final). The Delphi method is often used when there is insufficient empirical data to make a valid prognosis (Robertson et al., 2017). In summary,

Sobaih et al. (2012) sum up the objectives of the Delphi studies into four points:

- 1. Collecting and distilling knowledge from a group of experts;
- 2. Achieving consensus and/or gaining judgement on complex matters where precise information is unavailable to underpin a prediction of the future;
- 3. The reliable and creative exploration of ideas: and
- 4. The production of suitable information for critical decision-making.

The Delphi technique is characterised as a method for structuring a group communication process so that the process is effective in allowing a group of individuals to deal with a complex problem (Robertson et al., 2017). Data is generated through an interaction between the interviewer and the participant. In a Delphi study, it is important that random deviations, different understanding of the statements, or misunderstanding of numbers (for example with assessment scales) and the actual difference in responses are separated in the assessment to reach objectivity (Keeley et al., 2016; Robertson et al., 2017; Sohaih et al., 2012).

This article focuses upon the usage of the Delphi technique in qualitative research, particularly in the hospitality industry in the Netherlands. It presents the collection of narrative groups (expert) opinion and quantitively describes the results based on the six-phase framework for thematic analysis of hospitality experts' responses. The article is part of a study whose main aim is to develop hospitality industry recruitment and retention guidelines that a panel of experts is likely to use (McMillan et al., 2016) in informing hospitality industry human resource management (HRM) strategies. The study aimed to research consensus on the strategic HR approaches required to improve recruitment and retention in the hospitality industry.

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Attracting, retaining, developing and motivating hospitable talent is a perennial problem in hospitality industry's talent management (TM), more so in the 21st century and post-COVID-19 when the hospitality industry became seriously impacted. To contribute to further understanding of TM challenges and opportunities in the hospitality industry, I looked for in-depth, robust information from human resources experts in the hospitality sector. The Delphi technique allowed me to go in-depth with the panellist's independent opinions through a back-and-forth engagement till consensus was reached. This Delphi methodology tutorial discussion aims to act as an inquiring research methodology vehicle with teaching and application benefits to researchers and students who are seeking to explore forward-looking research. The Delphi method is such a futureoriented methodology, as it asks experts to evaluate and/or to make judgements about how they see a certain theme developing in the future. The Delphi process could be beneficial to research students, presenting them with an opportunity to directly engage with experts in their field of research and actively take part to forecast and raise potential solutions as it involves multiple interactions in conversations with key stakeholders on a number of occasions. These rounds of interaction could also help the students to create and develop a specific professional know-how and enlarge their network to present robust perspectives on the particular theme they are researching.

### The Delphi process experience

The choice for the Delphi method was influenced by various factors, such as the aim of the study, which required the opinions of experts on the subject to make valid judgements (Sobaih et al., 2012) and that a consensus by the experts is reached (Harvey & Holmes, 2012). This was reached under an interpretivist paradigm, where a panel of hospitality industry experts was engaged in a discussion on human capital strategy. The guiding question for the discussions was: how the hospitality industry can attract and retain the right talent. According to Mason (2018), research questions should address the intellectual and theoretical contributions of the overall research. Therefore, to further understand the importance of personal attributes that could enhance the hospitality industry's recruitment and retention from the industry's perspective, experts' individual opinions were sought.

The aim of this research study was to develop hospitality industry recruitment and retention guidelines that the panel of experts is likely to use (McMillan et al., 2016) in informing the hospitality industry's HRM strategies. The development of guidelines requires a rigorous process, with consensus needed from the experts to give authority to the final decision (Bloor et al., 2015). Further, the associated practicalities and limitations such as time and geographical logistics involved had an influence (Keeley et al., 2016). It became unrealistic for me to gather all the experts in one specific area due to their "always-full" agendas and still provide the required anonymity. The Delphi technique allows experts to deal systematically, anonymously and in their own time with complex issues for which their level of knowledge is necessary (Bloor et al., 2015; Okoli & Pawlowski, 2004; Sekayi & Kennedy, 2017; Yousuf, 2007). Thus, the use of the Delphi method was appropriate as it preserved participants' anonymity, the participants were not able to influence each other and therefore were conducive to independent thinking and thus gradual formulation of reliable judgements and results forecasting (Bloor et al., 2015; Sekayi & Kennedy, 2017).

Using the Delphi method (semi-structured, open-ended interviews) for this study ensured that there was a balanced participation from the panel of experts, while ensuring that the experts brought direct in-depth knowledge to the discussion (Sobaih et al., 2012). Unlike a focus group where the facilitator must control and minimise the risk of a dominant participant influencing the outcomes (McMillan et al., 2016), a semi-structured Delphi format helps to ensure that the most important aspects are covered, while allowing the participants the flexibility to explore relevant concepts. However, in Delphi studies, issues that are of interest to an academic researcher may not seem obvious to the practitioner or vice versa. Thus, to avoid high participant withdrawal, well-constructed research questions are essential (Sobaih et al., 2012).

In focus groups, data is generated through an interaction between the participants, facilitated by the researcher (Keeley et al., 2016). Participants can listen, discuss, agree, question, or clarify points that are raised by other participants in the group. This synergistic approach may help the participants explore outcomes that they deem to be relevant to them about talent management challenges and opportunities in the hospitality industry. It would enable them to see how their experiences and opinions differ from that of the other panellists in the group. However, there were also drawbacks to this approach for this research study.

The logistics involved in setting up a focus group for this study was a challenge. Further, group discussions can be intimidating and inhibitive to an individual participant (McMillan et al., 2016). I was not able to offset the shortcomings associated with pooling opinions obtained from focus group interaction, i.e. participant anonymity, influences of dominant individuals and group pressure for conformity (Hsu & Sandford, 2007; McMillan et al., 2016). The panellists were drawn from the hospitality industry in the Netherlands, are associated with an educational institution (stage 1 of this study) and were expected to be unbiased in their opinion with a genuine aim of improving hospitality industry recruitment and retention. This panel's characteristics meant that there was a need for a trusting environment where the panel could be reflective and share their talent management experiences and opinions as employees and as policy makers, with the required anonymity assured as per my capabilities. Moreover, Sobaih et al. (2012) suggest that using the Delphi technique enables the researcher to easily control the discussion should it stray into areas peripheral to an ongoing public debate regarding hospitality industry issues and behaviours.

The hospitality industry is a tribe (micro-community) where employees, regardless of their position, provide services to various customers ranging from a typical hotel guest to an employee as the organisation's asset (Robinson et al., 2014). Experts may know each other through working together for the same organisation at different career points or being members of the same association (Paraskevas & Saunders, 2012). The panellists, regarding their position in the hospitality industry, are also expected to maintain a positive attitude, even though they may experience obstacles. Thus soliciting their opinion in an open-group setting could have hindered their level of responses. On the other hand, completely eradicating the aspect of personality is difficult in the Delphi technique too as the experts may use informal channels of communication which

the researcher has no access to, such as in the case of Lugosi et al. (2012) where investigative research on internet streaming needed to gain permission to enter a blog. The Delphi technique ensures that each participant would have no pressure, either real or perceived, to conform due to social norms, customs, organisational culture, or standing within the profession (Hsu & Sandford, 2007).

This study sought to provide "solutions" to recruitment and retention challenges facing the industry and found it logical to engage the opinion of a panel of experts where there was no chance that they would influence each other's opinion (McMillan et al., 2016). Using the Delphi method enabled me to engage the panellists to look for solutions which were then prioritised and agreed upon.

#### Panellists selection: population and sampling

What constitutes an optimum number of participants in a Delphi study has not reached a consensus in the literature (Delbecq et al., 1975; in Hsu & Sandford, 2007; Sekayi & Kennedy, 2017). Some of the published studies seem to clearly agree that there are no existing criteria to identify the ideal sample size in a Delphi study (Hsu & Sandford, 2007; McMillan et al., 2016; Robertson et al., 2017). However, a Delphi study does not require a large statistical sample that attempts to be representative of any population as it is a group decision mechanism (Okoli & Pawlowski, 2004) where the quantification of incidences is not the focus (Ritchie et al., 2013). The purpose is to collect rich data that allows in-depth exploration and understanding of a specific topic (Keeley et al., 2016). However, an expert panel (sample) size ranging from seven to fifteen (Hsu & Sandford, 2007; Sobaih et al., 2012) and rarely exceeding 30 (Sekayi & Kennedy, 2017) is considered appropriate as the sample should be a representative pooling of judgement and information processing capability (Ritchie et al., 2013). This study's panel of experts sample group comprised of 14 hospitality industry experts who hold different levels of leadership positions in the hospitality industry.

Hospitality experts in the Netherlands acknowledge the industry's recruitment and retention challenges (*Stichting Vakbekwaamheid Horeca* [Professional Competence in Hospitality Foundation], 2018). However, they would differ on individual perceptions regarding talent management challenges and opportunities such as employee wellness, job and character fit and the right personality profile for the industry. According to Sobaih et al. (2012), these differences highlight the importance of including variation in a sample, in this case diversity of experience and employment profiles.

#### Sampling

For the purposes of this article, the term *sample* is interchangeable with participants and/or the selected panel of experts. The sampling strategy that facilitated data collection is purposive sampling. A carefully selected panel of hospitality experts were sampled as it was critical for this study's aim to identify and recommend recruitment and retention strategies that are relevant for all hospitality industry stakeholders. Purposive sampling can be used to recruit heterogeneous maximum variation samples where participants differ by selected characteristics to identify a maximum variation sample (Keeley et al., 2016). I believe that the chosen panel (sample) size constitutes a good representation of hospitality expert opinion.

The panel (sample) is derived from the hospitality industry population in the Netherlands and comprises senior managers from international chains of hotels ranked as four and five stars, as well as senior consultants with globally reputable hospitality organisations. The participants have a wide range of hospitality experience having worked their way up from mid-level management to directorship positions. Therefore, the panel composition is representative as the experts have an average of 15 years of hospitality industry experience in and beyond the Netherlands, meaning that their responses were based on a broader perspective.

As is the tradition of the Delphi process, selected participants (panel of experts) should be well versed and experienced in the research topic for the findings to have critical authority (Sobaih et al., 2012). This study's sample choice and size was found to be appropriate for this study's aim due to the following criteria:

- The panellists have a high level of authority about talent management due to their employment history in the hospitality industry (Paraskevas & Saunders, 2012; Sekayi & Kennedy, 2017);
- The panellists are associated with the education institution used to collect data in the first stage of the study on an advisory board level, thus their opinion is recognised in the development of future hospitality industry employees (Sobaih et al., 2012);
- 3. The panellists were willing to participate, likely to be committed to support the study's topic and aim and had effective communication skills and a good command of the English language (Okoli & Pawlowski, 2004; Donohoe & Needham, 2009); and
- 4. The sample size of 14 was appropriate as a point of diminishing return was noted (conceptual saturation was achieved) (Keeley et al., 2016).

Informed consent to participate was sought from the participants, confirming that they understood the purpose and procedure of the study, their rights in the course of this study and the benefits of their participation.

#### Case study: example of a qualitative Delphi study

#### Data collection procedure

Data was collected using the Delphi method's semi-structured interview technique. The semi-structured, open-ended questions were shared with 16 panellists that responded to my request and agreed to participate in the study. The panellists shared their responses electronically in a series of three iterations designed to develop a consensus. A three-round Delphi process was chosen as three rounds are considered adequate for panellists to achieve consensus (Skulmoski et al., 2007). Iterations refer to the feedback process viewed as a series of rounds where each participant responds to a semi-structured questionnaire that is then returned to the researcher (Hsu & Sandford, 2007; Saldaña, 2015).

A description of each ranking based on the following identified themes is presented below, namely hospitable personality, HRM talent management strategies and policies, employee well-being and work environment. According to Sekayi and Kennedy (2017), a description of each ranking is provided to enhance the consistency in meaning of panellists' responses:

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Strongly endorsed: Panellists fully agree with the presented statement with no further modifications necessary.

Moderately endorsed: Panellists agree to a certain degree with minor but important modifications (present hindrances and suggestions on the cause of the presented outcome).

Minimally endorsed: Panellists disagree with the statement.

(Bloomberg & Volpe, 2016; Sekayi & Kennedy, 2017).

The first round of the data collection was initiated where all the panellists were presented with a set of open-ended questions in the form of six statements about hospitality industry recruitment and retention opportunities and challenges to respond to and endorse independently. The statement rankings were agreed upon after engaging with the panellists in debating and discussing the presented statement and responses to a theme in several rounds.

The six statements were shared via electronic means i.e. e-mail and phone communication between the participants and me. It is important to start the Delphi process with carefully selected themes which are normally grounded in theory, and thus the statements were informed by a critical review of literature and the findings of the first phase of this study. I communicated response deadlines, which were not completely adhered to for a variety of reasons. For practical reasons, a decision was made to work with the received responses of N = 14, thus there was a response rate of 87.5%. The entire data collection process took four weeks.

Upon collection of the narrative comments on the statements provided by the participants, the data were sorted and overarching categories and concepts were identified and labelled using open and axial coding (Saldaña, 2015; Mason, 2018). This step consisted of assigning descriptive labels and identifying how these descriptive codes fit together to make meaning (Brinkmann, 2014; Sekayi & Kennedy, 2017). The generation of a list of statements using the generated categories from the axial coding process followed. According to Sekayi and Kennedy (2017), this data reduction step requires that some statements are reworded to create a composite group response. The data was analysed once again. Participant comments and responses were integrated into the statements and new statements developed and presented to the participants. Finally, the findings of round one were shared with the panellists, as a summation makes each participant aware of the range of opinions and the reasons underlying those opinions (Hsu & Sandford, 2007).

Round two comprised four open-ended statements for the panellists to respond to. Each of the panellists were asked to review and react to the statements summed up by myself, based on information collected in round one. The four statements were formulated as a representation of round one panellists' opinions. The statements focused on the HRM best practices that could improve employee well-being by developing resilience support mechanisms for employees. The panellists were asked to respond to the statements and include any modifications within a week. Upon receipt of the responses, I analysed the data and generated clear and inclusive statements while maintaining the original purpose and meaning. There were no modifications that arose from the responses that altered the original statement and thus there was no need for additional statements to reflect the

new idea (Sekayi & Kennedy, 2017). The participants were given an extra opportunity like in round one to revise their responses, but there were no adaptations to their original judgements. Therefore, consensus was achieved and the outcomes were presented among the participants' responses. The number of Delphi iterations depends on the degree of consensus sought, which can vary from three to five (Delbecq et al., 1975; in Hsu & Sandford, 2007).

In round three, the final presentation of the findings to the participants was based on their level of endorsement from rounds one and two of the Delphi process. The expert opinion supported this study's final contributions, which was the development of an effective recruitment and retention toolkit that supports the industry to remodel their recruitment and retention strategies to encourage employees' emotional resilience, and ultimately, improve talent attraction and retention. This final part of the study was to develop findings and generate knowledge for industry practitioner use (Ritchie et al., 2013). The toolkit addresses hospitality talent management issues such as work-life balance, remuneration, scheduling, career development and training.

After the data was analysed, the panellists were contacted and the research findings shared with them. The panellists were invited to comment on the findings and conclusions drawn in this research study. A response timeframe was set to a week and all the panellists shared their findings response within this period. The number of panellists (14) was found to be appropriate for this study as it did present enough diversity of perspective (Sekayi & Kennedy, 2017) on talent management opportunities and challenges in the hospitality industry. According to Ritchie et al. (2013), the appropriate panel size can be determined by a representative pooling of judgement and information processing capability.

The first draft of the proposed strategic HRM recruitment and retention toolkit was drafted and circulated to the experts for their feedback. The participants were asked to read through the proposed toolkit and give their feedback within two weeks, which they adhered to. Received feedback contained minor comments for alterations regarding the toolkit content, i.e. use of industry jargon such as mentorship was replaced with competitive mentorship and professionalism was replaced with the surprise economy in the toolkit. According to the panellists, the surprise economy entails an employee having unexpected positive experiences throughout their experience journey.

I incorporated the experts' feedback and once more circulated the re-adapted toolkit for final comments. The response time took an average of ten days, with reminders to respond being sent out to the participants. The initial deadline communicated was five working days. In this third and final round of feedback, the responses were committed and inclusive of the participants opinions and recommendations as there was total agreement because the panel of experts reached a hundred per cent consensus. The experts endorsed the proposed hospitality industry strategic HRM recruitment and retention toolkit as user friendly and of relevance to both the operational and strategic operations in hospitality industry. In the end, there were four expert rounds of discussions to achieve consensus and endorse this research study's findings by hospitality industry experts.

#### Data analysis

For this study, abductive data analysis thinking is used as the goal is to understand and offer valid explanations (Brinkmann, 2014) as to why the industry is struggling to attract and retain talent. The data analysis aims are to interpret hospitality experts' meanings and interpretations of recruitment and retention experiences and opinions to develop new theories from the data using sensitising concepts (Mason, 2018), as well as to inform on possible solutions for improving recruitment and retention strategies. Therefore, an interpretive content analysis is used to depict what is meant by the data (Ritchie et al., 2013).

The raw data set was taken through three iterations as consensus was determined and achieved. Hsu and Sandford (2007) confirm that three iterations are often enough to collect the required information and to reach a consensus in most cases. However, the kind and type of criteria to use to determine and define consensus in a Delphi study is subject to interpretation as consensus can be decided if a certain percentage is reached (Sekayi & Kennedy, 2017). Some criteria recommend that at least 70% of Delphi subjects need to agree on the statement, the subjects need to rate three or higher on a four-point Likert-type scale and the median should be at 3.5 or higher (Miller, 1956). However, Hsu and Sandford (2007) reveal that the use of percentage measures is inadequate. They suggest that a more reliable alternative is to measure the stability of subjects' responses in successive iterations. To undertake a valid analysis, this study borrowed from the six-phase framework of Braun and Clarke (2006). However, according to Braun and Clark, the six phases are not necessarily linear, and one can move back and forth, especially when dealing with complex data.

#### **Analysis process**

Data was analysed and triangulated using elements of the six-phase framework proposed by Braun and Clarke (2006). This framework for thematic analysis ensured rigour in the data analysis process with a rich thematic description and a valid reflection of the data set (Bree & Gallagher, 2016). I implemented an easy and practical method to thematically analyse the hospitality experts' panel responses using Microsoft Excel. An abductive approach was implemented where the data was coded and categorised for analysis, ensuring that the analysis process was determined by collected data during the evaluation phase (Bree et al., 2014). Identified themes were initially analysed in a descriptive form to show patterns in a sematic manner and thereafter the analysis progressed to an interpretive form, thus looking beyond the surface (latent) to present data with broader meanings (themes/patterns are deduced via engagement with literature) as advised by Braun and Clarke (2006).

Once the data was sorted and ordered, I started to make some interpretive sense of the data to create a transparent data display (Mason, 2018). Thereafter, categories of information were generated, referred to as codes (open coding), and positioned in the theoretical model (axial coding) as emerging themes were identified and recoded. Each of the response categories had one or more correlated idea that gave a deeper meaning to the data. Various coding groups would be summarised under an overarching theme. Saldaña (2015, p. 142) defines a theme as "a phrase or sentence that identifies what a unit of data is about and or what it means". Theming of concepts is also referred to as conceptualisation, labelling shifts from raw data to a more

abstract representation (Brinkmann, 2014; Mason, 2018). This allowed room for gathering different phenomena with the same properties under its corresponding abstract concept (Saldaña, 2015). This article does not claim that the interrelationship among these steps is necessarily linear (Bloomberg & Volpe, 2016). Each phase in this multi-round process leads logically to the next. Once the results were clear, I reviewed the literature and observations to find correlations.

#### Validity, reliability and credibility

To demonstrate reliability, I incorporated Delphi process research practices that enhanced the research credibility by minimising the errors and biases in the research so that if the same research were to be conducted following the same procedures, the same findings and conclusions would be drawn. To increase the study's validity, the panel was selected from the field of study, i.e. the hospitality industry. Such participants are directly affected and are likely to benefit from the study's research findings. Fourteen hospitality experts with a diverse range of expertise were engaged in three iterations, which helped me to minimise the likelihood of access to a panel that was not representative of the hospitality community, thus increasing the study's relevance to both academics and the industry. Further, the use of three rounds of the semi-structured interview statements assisted in increasing the concurrent validity, while engaging panellists who are hospitality experts (knowledge, experience and interest) increased the content validity. Delphi panellists are typically selected, not for demographic representativeness, but for the perceived expertise that they can contribute to the topic (Sekayi & Kennedy, 2017).

To further demonstrate credibility, the 14 panellists shared opinions and decisions were strengthened by reasoned argument in which assumptions were challenged till consensus was achieved. Therefore, through prolonged engagement, the modifications helped to ensure the research credibility as several distinct questions were presented to the experts who were encouraged to offer detailed examples of their opinions and experiences. I asked follow-up questions where necessary and the raw data (interview responses) was studied until a theme under the study's phenomenon emerged. In addition, I constantly read and reread the raw data, analysed and themed it, while revising the concepts accordingly, to develop the codes and concepts to examine the data characteristics to provide the intended depth of insight.

To demonstrate sensitivity to context, I related the study to previous relevant research on hospitality industry recruitment and retention challenges. I noted not only where the study's findings echo the previous studies, but also where they differ and offered suggestions on new ways of conceptualising the effect of employees' emotional resilience on hospitality industry recruitment and retention. According to Lyons and Coyle (2016), research rigour relates to the completeness of the data collection and analysis, while transparency entails detailing every aspect of the research process of data collection and analysis.

## Research ethics in a Delphi study

When asking individuals about their opinions and behavioural patterns, some ethical considerations should be considered. According to the European privacy law, the general data protection regulations pertaining to collecting and utilising

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personal data were adhered to. The Algemene Verordening Gegevensbescherming (General Data Protection Regulations) demand that any data collected cannot be used unless a participant willingly waives their right to the data (Autoriteit Persoonsgegevens [Dutch Personal Data Authority], 2018). For this research study, the participants were asked to waive the ownership of their personal data by signing a consent form before participating in the research. The participants were informed that anonymous codes would be used during the data entering process. The codes are only known to me to identify the participants. I am the sole owner of the acquired data which was handled and treated confidentially. There were two debriefing opportunities for the participants.

In the Delphi process, the panel's anonymity was assured by setting up an interview process that avoided any face-toface meetings, as the panellists were requested and expected to respond to the statements individually, thus their responses could be unbiased and valid and consensus achieved. Consensual agreement among expert panellists of anonymised opinions and statements was achieved through repeated iterations by email. The panellists were provided with an informed consent form which, upon signing, meant that they understood the aims and expectations of the research. All the panellists agreed to participate in the research due to their expertise in the hospitality industry and their roles as an advisory board members of a hospitality training institution based in the Netherlands. The identity of the panellists was only known to me. To maintain Delphi technique research rigour, a response rate of 87.5% (14/16) was achieved and maintained throughout the process. Even though the panellists may know each other through different channels, their judgement and opinions remained strictly anonymous.

#### **Limitations**

It was a challenge to correctly define an expert because job titles differ across the hospitality industry and experts identified early in the research could change employment. This characteristic may affect the research validity if the findings are only drawn from the perspective of a predefined expert. Taking a pragmatic approach in this industry with high levels of staff replacement and fragmentation into large, medium and small operators, it can be difficult to conduct follow-up interviews as experts may have moved on to new employment and no longer be available (Sobaih et al., 2012). Another Delphi caveat is the time commitment required of the participants. A qualitative Delphi technique requires active participation, which can be a challenge as the hospitality industry is labour-intensive (Davis, 2015) and experts may not have enough time to engage in the Delphi process. This means that there is the ever-present risk of participants dropping out before the process concludes (Sekavi & Kennedy, 2017). This limitation was addressed by clearly informing the panellists of the commitments involved in advance, and offering convenient options for data collection, for example having a direct email link where the participants could respond with one click. The transferability of the research might have been challenged as the panel members may have based their opinions on their current employment responsibilities and current talent management challenges, thus their validation may not be as neutral as expected. Another transferability critique could be that the panel comprises a small sample size that is meant to be representative of hospitality industry experts. This article acknowledges that a Delphi sample could be derived from a global pool of hospitality representatives and other direct stakeholders such as union representatives to address this limitation.

#### Conclusion

The Delphi method is used as a multi-level qualitative method using a series of rounds of data collection in a highly structured, anonymous group interaction. The Delphi technique is insightful and facilitates the collection and evaluation of a depth and breadth of information essential for critical qualitative research. The Delphi technique is an important data collection methodology for researchers eager to gather data from people who are immersed in the topic of interest to provide real-world knowledge.

Employing the Delphi technique enables a researcher to get in-depth data through semi-structured, open-ended interview questions from the perspectives of the research participants in their domain of expertise anonymously. The Delphi technique is an effective way of engaging with experts and collecting qualitative data from a diverse sample of participants that can be restricted by research-associated practicability's and limitations such as time and geography.

The Delphi technique is a flexible tool that enables researchers to explore and discover what is known and/or unknown about a specific research theme. Therefore subject, expert or participant selection should be considered carefully prior to starting such a study. This article aims to add to the limited literature on conducting a qualitative Delphi analysis.

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#### References

Ab Latif, R. A., Dahlan, A., Mulud, Z. A., & Nor, M. Z. M. (2016). Using Delphi technique: making sense of consensus in concept mapping structure and multiple-choice questions (MCQ). *Education in Medicine Journal*, 8(3), 89–98. https://doi.org/10.5959/eimi.v8i3.421

Authoriteit Persoonsgegevens [Dutch Data Protection Authority]. (2018). www.autoriteitpersoonsgegevens.nl

Bloomberg, L. & Volpe, M. (2016). Completing your qualitative dissertation: A roadmap from beginning to end. Sage Publications.

Bloor, M., Sampson, H., Baker, S., & Dahlgren, K. (2015). Useful but no Oracle: Reflections on the use of a Delphi Group in a multi-methods policy research study. *Qualitative Research*, 15(1), 57–70. https://doi.org/10.1177/1468794113504103

Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Bree, R. & Gallagher, G. (2016). Using Microsoft Excel to code and thematically analyse qualitative data: a simple, cost-effective approach. All Ireland Journal of Teaching and Learning in Higher Education, 8(2), 2811–2814.

Bree, R. T., Dunne, K., Brereton, B., Gallagher, G., & Dallat, J. (2014). Engaging learning and addressing over-assessment in the Science laboratory: solving a pervasive problem. The All Ireland Journal of Teaching and Learning in Higher Education, 6(3), 2061–20636.

Brinkmann, S. (2014). Doing without data. *Qualitative Inquiry*, 20(6), 720–725. https://doi.org/10.1177/1077800414530254

Creswell, J. (2007). Qualitative inquiry and research design: choosing among five approaches. Sage Publications.

- Davis, T. (2015). Hospitality workers among most stressed in Britain. *HotelOwner*, 3 November. http://www.hotelowner. co.uk/4862-hospitality-workers-among-most-stressed-in-britain/
- Donohoe, H. M. & Needham, R. D. (2009). Moving best practice forward: Delphi characteristics, advantages, potential problems, and solutions. International Journal of Tourism Research, 11(5), 415–437. https://doi.org/10.1002/jtr.709
- Harvey, N., & Holmes, C. A. (2012). Nominal group technique: an effective method for obtaining group consensus. *International Journal of Nursing Practice*, 18(2), 188–194. https://doi.org/10.1111/j.1440-172X.2012.02017.x
- Hsu, C.-C., & Sandford, B. A. (2007). The Delphi technique: making sense of consensus. *Practical Assessment Research & Evaluation*, 12(10), 1–8.
- Jeste, D. V., Ardelt, M., Blazer, D., Kraemer, H. C., Vaillant, G., & Meeks, T. W. (2010). Expert consensus on characteristics of wisdom: A Delphi method study. *The Gerontologist*, 50(5), 668–680. https://doi.org/10.1093/ geront/qnq022
- Keeley, T., Williamson, P., Callery, P., Jones, L. L., Mathers, J., Jones, J., Young, B., & Calvert, M. (2016). The use of qualitative methods to inform Delphi surveys in core outcome set development. *Trials*, 17(1), 230–240. https://doi.org/10.1186/s13063-016-1356-7
- Lugosi, P., Janta, H., & Watson, P. (2012). Investigative management and consumer research on the internet. *International Journal of Contemporary Hospitality Management*, 24(6), 838–854. https://doi. org/10.1108/09596111211247191
- Lyons, E., & Coyle, A. (Eds.). (2016). Analysing qualitative data in psychology. Sage Publications.
- Mason, J. (2018). Qualitative Researching. 3rd edn. Sage Publications.
- McMillan, S. S., King, M., & Tully, M. P. (2016). How to use the nominal group and Delphi techniques. *International Journal of Clinical Pharmacy*, 38(3), 655–662. https://doi.org/10.1007/s11096-016-0257-x
- Miller, G. A. (1956). The magical number seven, plus, or minus two: Some limits on our capacity for processing information. *Psychological Review*, 63(2), 81–97. https://doi.org/10.1037/h0043158
- Okoli, C., & Pawlowski, S. D. (2004). The Delphi method as a research tool: an example, design considerations and applications. *Information & Management*, 42(1), 15–29. https://doi.org/10.1016/j.im.2003.11.002

- Paraskevas, A., & Saunders, M. N. (2012). Beyond consensus: An alternative use of Delphi enquiry in hospitality research. *International Journal of Contemporary Hospitality Management*, 24(6), 907–924. https://doi. org/10.1108/09596111211247236
- Ritchie, J., Lewis, J., & Elam, R. G. (2013). Qualitative research practice: A guide for social science students and researchers. Sage Publications.
- Robertson, S., Kremer, P., Aisbett, B., Tran, J., & Cerin, E. (2017). Consensus on measurement properties and feasibility of performance tests for the exercise and sport sciences: A Delphi study. *Sports Medicine Open*, 3(1), 2–10. https://doi.org/10.1186/s40798-016-0071-y
- Robinson, R. N., Kralj, A., Solnet, D. J., Goh, E., & Callan, V. (2014). Thinking job embeddedness not turnover: towards a better understanding of frontline hotel worker retention. *International Journal of Hospitality Management*, 36, 101–109. https://doi.org/10.1016/j.ijhm.2013.08.008
- Saldaña, J. (2015). The coding manual for qualitative researchers. Sage Publications.
- Sekayi, D. & Kennedy, A. (2017). Qualitative Delphi method: a four round process with a worked example. *The Qualitative Report*, 22(10), 2755–2763. https://doi.org/10.46743/2160-3715/2017.2974
- Skulmoski, G. J., Hartman, F. T. & Krahn, J. (2007). The Delphi method for graduate research. *Journal of Information Technology Education*, 6, 1–21. https://doi.org/10.28945/199
- Sobaih, A. E. E., A., Ritchie, C., & Jones, E. (2012). Consulting the oracle? Applications of modified Delphi technique to qualitative research in the hospitality industry. *International Journal of Contemporary Hospitality Management*, 24(6), 886–906. https://doi. org/10.1108/09596111211247227
- Stichting Vakbekwaamheid Horeca [Foundation for Professional Competence in Hospitality] (2018). www.svh.nl
- Yousuf, M. I. (2007). Using experts' opinions through Delphi technique. Practical Assessment, Research & Evaluation, 12(4), 1–8.