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APPLYING METHODS TRIANGULATION TO RESEARCH QUALITY ASSURANCE IN HIGHER EDUCATION

ABSTRACT

Grounded theory (GT) is widely used in qualitative research to generate theory through constant comparison, memoing, theoretical sampling and category development. However, less attention has been given to how methods triangulation can be operationalised within GT without displacing qualitative analysis as the central source of conceptual development. This article demonstrates how methods triangulation can strengthen qualitative GT analysis. It shows how different data slices can support constant comparison, expose dissonance, guide theoretical sampling, stimulate abductive reasoning, and contribute to category saturation and theory generation. The study was conducted in the context of small higher education institutions (HEIs) and examined the relationship between quality assurance, innovation and performance. Twenty-one in-depth interviews formed the analytical engine of the research and were analysed through iterative coding, memoing and constant comparison. Additional sources, including external quality assurance reports, accreditation data, and audited financial reports were incorporated as comparative indicators within the GT process. These sources were not treated as independent mixed-methods strands, but as analytically useful data slices that informed and refined the sampling strategy, category development, and theoretical saturation. The triangulated process enabled the development of a four-quadrant taxonomy linking quality assurance readiness, institutional performance and innovation activity. The taxonomy was then used to return to the qualitative data, compare institutional groups and deepen the emerging grounded theory explanation. The article contributes to the qualitative research methodology by showing how methods triangulation can be embedded within GT as an analytical rather than merely a validating strategy. It maintains the qualitative interviews as the central engine of theory generation while other qualitative, quantitative, and quantised data sources act as prompts for comparison, dissonance and abductive interpretation.

Keywords

Grounded theory; Methods triangulation; Quality assurance; Innovation and performance; Higher education.

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1. Introduction

Grounded theory (GT) is a robust qualitative methodology designed to generate theory through systematic engagement with data, theoretical sampling, memoing, and constant comparison (Glaser & Strauss, 1967). Its methodological strength lies in the comparison of incident to incident, incident to code, code to code, code to category, and category to category (Birks & Mills, 2015, p. 11). In this sense, GT already contains an internal logic of analytical triangulation since the concepts are continuously being tested, refined and modified through constant comparison. This paper focuses on a specific methodological challenge of how methods triangulation (Patton, 1999), also called within-methods triangulation by Jonsen and Jehn (2009, p. 126), can be operationalised within a GT study in order to support and enhance the analytic power of the qualitative analysis. Methods triangulation is well described by Patton (2002), who posits that “qualitative and quantitative data can be fruitfully combined to elucidate complementary aspects of the same phenomenon” (p. 558). Following the maxim that “all is data” (Glaser, 2007, p. 1), GT allows for the systematic integration of qualitative with quantitative evidence opening capacity for methods triangulation. This strengthens the data analysis by using diverse “slices of data” (Glaser & Strauss, 1967, p. 65) to provide a more stable and credible view of reality than a single method can offer (Patton, 1999, p. 1192). While triangulation is often invoked as a strategy for increasing credibility, this paper argues instead that methods triangulation can do more than validate, but when incorporated into constant comparison, different data sources can create contrast, reveal dissonance, stimulate abductive reasoning, guide theoretical sampling and strengthen category development. The paper is set in a wider GT study exploring the impact of quality assurance (QA) on innovation and performance in small higher education institutions (HEIs). However, the contribution here is primarily methodological. It examines how the study incorporated multiple types of data, complementing the qualitative interviews as the main source of conceptual generation. The study employed in-depth interviews with HEI representatives and regulatory stakeholders as its analytical driver, supported by an evolving sampling strategy directed towards theoretical saturation as demanded by GT (Glaser, 1978) to answer the following research question:

How do quality assurance systems impact innovation and performance in small higher education institutions?

To understand the phenomenon deeply, external audit reports, accreditation data and audited financial reports were used as additional data slices within the constant comparative process. These sources were not treated as separate analytical strands as would normally be expected in mixed methods designs. This distinction is important as in mixed methods, such as sequential mixed methods (Creswell & Creswell, 2017), components often have distinct research questions, procedures, analytical stages and integration points. In this study, by contrast, additional data were used to compare, extend and refine the emerging grounded theory generated primarily through the qualitative interviews.

1.1 Context

Several authors have studied the impact of QA on higher education (Antunes et al., 2018a; Leiber, 2018; Newton, 2010; Owlia & Aspinwall, 1997; Psomas & Antony, 2017; Seyfried & Pohlenz, 2018; Venkatraman, 2007). While there are studies on the effect of quality assurance on innovation (Al-Imarah et al., 2021; Mello Silva & Vargas, 2022; Riccomini et al., 2021; Roffe, 1998; Schneckenberg, 2009) and on how QA affects performance (Antunes et al., 2018a; Idris, 2019; Kettunen, 2008), only a few authors have studied the effect on both (Antunes et al., 2018b; Sciarelli et al., 2020). The empirical context is particularly suitable for this methodological discussion. Small and micro HEIs operate in a highly regulated, competitive environment, where QA, innovation and performance are deeply interconnected. Interviews provide rich insight into meanings, strategies, challenges and institutional responses while additional data support or challenge participant accounts. The methodological value of methods triangulation lies not in producing a single confirmed version of reality, but in creating a denser body of data for the qualitative analysis and category development. This paper therefore makes three contributions: first it demonstrates how methods triangulation can be embedded in the qualitative, constant comparison logic of GT; second, it clarifies the role of non-interview data as comparative indicators rather than independent quantitative strands; third, it reflects on the methodological implications of using triangulation, dissonance and abductive reasoning in small, regulated and data-sensitive research settings.

2. Methodology

This study adopts a GT methodology (Strauss & Corbin, 1990), a choice driven by the need for an inductive, theory-generating strategy that captures the particular dynamics of small organisations. Small HEIs operate within specialised, tightly knit and resource-constrained professional ecosystems where standardised indicators alone cannot capture institutional behaviour. By employing the maxim that “all is data” (Glaser, 2007, p. 1), the methodology transcends traditional qualitative boundaries to integrate diverse slices that supplement the in-depth interviews towards methods triangulation as advocated by Patton (1999). This approach does not merely seek to validate findings but to increase the explanatory power of the emerging theory by exploring both convergence and dissonance between subjective participant experiences and objective institutional outcomes (Creamer, 2022, p. 93). Ultimately, this provides a robust, evidence-based lens through which to explore how QA systems intersect with innovation and performance while remaining flexible enough to understand such intersections in the socio-economic landscape of a small island state.

The twenty-one in-depth interviews were central to the study, providing the primary source of conceptual development, capturing how institutional leaders and regulatory actors understood QA, innovation and performance.

Coding, memoing and constant comparison of interview incidents generated the core categories of the study while the additional slices aided the densification of such categories. This allowed the analysis to move between subjective meanings, documentary traces, regulatory assessments and financial indicators while remaining anchored in GT logic.

2.1 Philosophical Positioning and Grounded Theory Traditions

The lead researcher has adopted a GT approach based upon Strauss and Corbin (1990) and their pragmatist orientation. The authors have sought to avoid methodological slurring (Baker et al., 1992), whilst still acknowledging the valid contributions of other seminal GT authors. At the foundational level, this research adopts a symbolic interactionist ontology. This perspective posits that social reality is not a fixed, external structure, but is instead continuously constructed through the symbols, language, and everyday interactions of individuals (Charmaz, 2006). In this study, quality assurance, innovation, and performance are viewed not as static bureaucratic mandates but as constructs shaped by HEI professionals' interpretations, staff capabilities, resource constraints and perceptions of opportunities and risks. As a practitioner with several years of experience in the sector, the lead researcher adopts a pragmatist epistemology, complementing the ontological stance and serving as the overarching research paradigm. Pragmatism prioritises the practical application of ideas, evaluating the truth of knowledge based upon its workability and fit (Glaser, 1978; Strauss & Corbin, 1990). It bridges the gap between the subjective experiences of staff and the objective institutional metrics obtained through additional data. Pragmatism is appropriate because the research is concerned with how QA systems work in practice, how institutional actors respond to them and how these responses influence innovation and performance. The value of the emerging theory is therefore assessed through its fit, relevance, workability and modifiability.

The study draws selectively on different grounded theory traditions while maintaining procedural consistency. Glaserian GT informed the commitment to theoretical sensitivity, theoretical sampling and the principle that "all is data" (Glaser, 2007, p. 1). Early Straussian GT informed the use of the conditional/consequential matrix as a heuristic for relating contextual conditions, actions/interactions and consequences. Pragmatism, with its emphasis on meaning, action and process, and with verification as an explicit goal (Rizzo et al., 2024, p. 7), therefore provided the bridging paradigm allowing different data sources to be judged according to their usefulness within constant comparison in strengthening the emerging explanation.

2.2 Ethical Considerations

Ethical approval for the underlying doctoral study from which the empirical material in this methodological article was drawn was granted by the Malta College of Arts, Science and Technology's Research Ethics Committee (approval reference CDRSH-706-1805 on 6 May 2022).

The present methodological article involved no additional primary data collection and therefore did not require separate ethical approval. All 21 participants provided written informed consent, including consent to audio-recording and the use of anonymised data. Personal and institutional identifiers were removed or generalised because of the risk of indirect identification within Malta's small higher education sector.

3. Methodological Framework: Advancing Grounded Theory with Methods Triangulation

The study uses a multi-phased methodological framework rooted in the early Straussian tradition of GT (Strauss & Corbin, 1990). The framework was organised around three iterative phases which are presented sequentially for clarity, but in practice they overlapped through the iterative logic of GT.

3.1 Phase 1: Qualitative Data Generation as the Analytical Driver

The study began with open-ended in-depth interviews as the primary source of data that provided access to participants' real-world experiences. These interviews were immediately coded before moving to subsequent cases, allowing analysis to inform sampling decisions. Qualitative data incidents from interviews were compared against each other through the constant comparative process. This continued until a theory grounded in data was fully integrated through a process of conceptual leaps termed abduction (Birks & Mills, 2015; Charmaz, 2006). Earlier interviews generated initial codes, subsequent interviews allowed emerging categories to be developed while later interviews were used to pursue theoretical gaps. The qualitative analysis therefore shaped the direction of the study. It determined what needed to be compared, which institutional patterns required further exploration, and what additional evidence was needed.

3.2 Phase 2: Integrating Additional Data as Comparative Slices

In order to enrich the cases, additional data were gathered to provide further contextual evidence concerning HEI performance and innovation indicators and to create analytical contrasts with the interview data. Such data were collected contemporaneously to support temporal comparability (see Table 1).

Table 1. Role of data sources within the GT methods triangulation process

Data source	Type of data	Status in the study	Function within grounded theory
In-depth interviews	Qualitative	Primary conceptual source	Generated incidents, codes, categories, memos, and theoretical comparisons
EQA reports	Qualitative/quantised	Comparative slice of data	Comparison of QA readiness to identify convergence or dissonance with interview accounts
Accreditation database	Quantitative/documentary	Comparative slice of data	Indicated programme-development activity towards analysis of innovation positioning
Financial Statements	Quantitative	Comparative slice of data	Provided performance trajectories that challenged or supported participant narratives

As data were collected, they entered an iterative cycle of capture, analysis and constant comparison. Comparing interview accounts with the additional data created a dialogue between sources in which convergence strengthened interpretations, while discrepancies prompted deeper analysis and theoretical sampling. An example of how the triangulation process operated analytically in practice is that of Case 21, where the interviewee portrayed the institution's quality assurance as mature and aligned with strategic performance. This account was supported by its external quality assurance profile and sustained positive net-asset-value trajectory, indicating QA readiness and financial stability. However, accreditation data showed limited programme innovation. This dissonance generated the memo question 'Does mature QA necessarily enable innovation?' and prompted comparison with more innovative, high-performing cases. Returning to the coded interview revealed an emphasis on compliance, stability and traditional provision rather than experimentation. The emerging category was consequently refined: QA maturity constituted an enabling condition, but its consequences for innovation depended on the institution's strategic orientation and organisational appetite for experimentation.

3.3 Phase 3: Theoretical Integration and Saturation

The framework moved through different stages of sampling, depicted in the first part of the flowchart (Figure 1a) and from substantive coding to theoretical coding. Methods triangulation acted as an analytical sensitising device. A category was considered more robust when it demonstrated fit and workability across interview accounts and other institutional evidence, as shown in Figure 1b. However, convergence was not the only criterion. Dissonance between sources was also important because it prompted further theoretical sampling, memoing and category refinement.

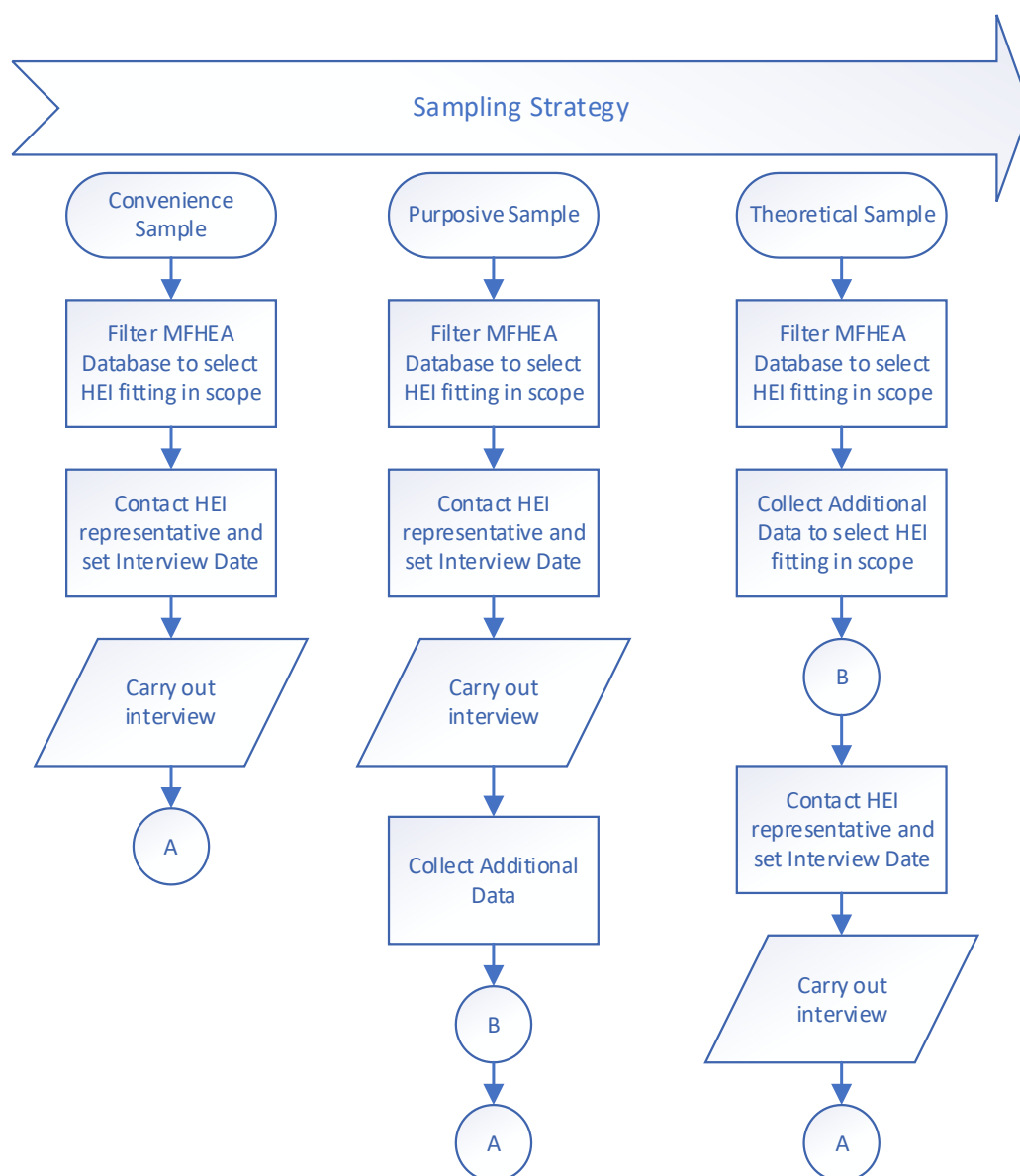


Figure 1a. Sampling strategy with respect to the triangulation and theory generation process (Part 1 of flow chart)

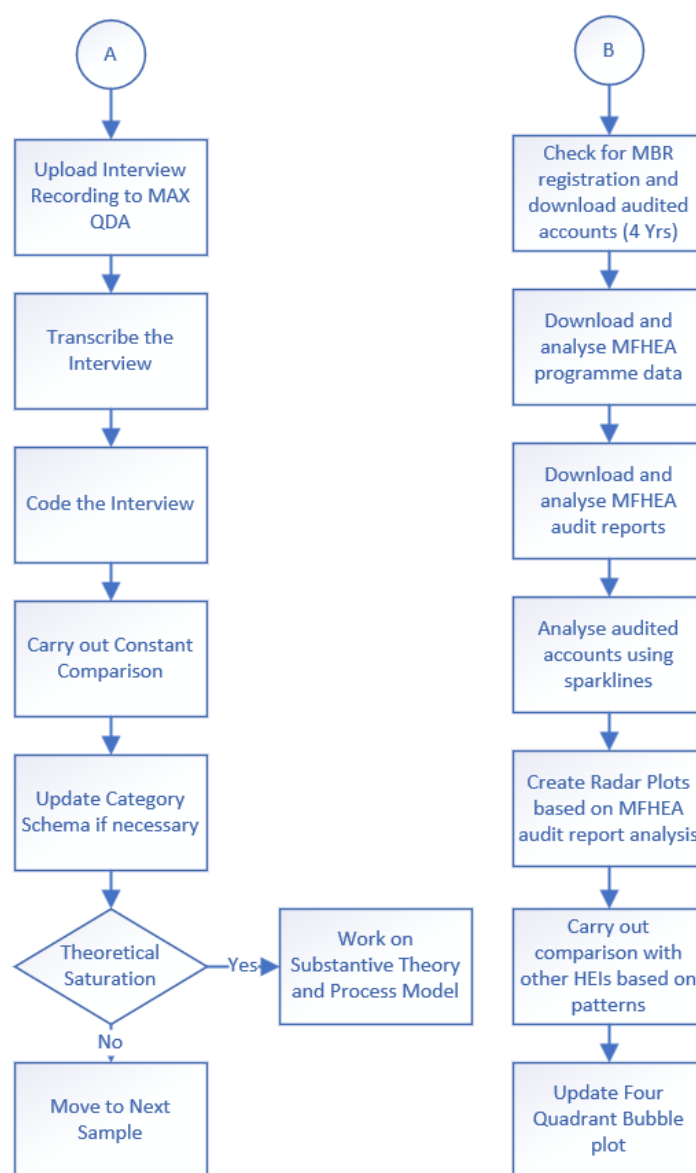


Figure 1b. Triangulation and theory generation process (Part 2 of flow chart)

4. Proposal: Applying Methods Triangulation in the GT Process

This section illustrates how the triangulated GT process was applied in the empirical study. Its purpose is not to present the full substantive findings of the wider project, but to demonstrate how the method enabled the analysis while keeping the in-depth interviews as the main interpretive data source. The sampling and analytic strategy adopted is shown in Figure 2. The convenience sample included five cases.

This stage was followed by ten purposively selected cases guided by the findings of the convenience sampling aiming at a variation of characteristics with participants from small, micro HEIs and regulatory sphere (purposive sample). The final set consisted of six cases specifically chosen to fill gaps detected in particular concepts aiming at theoretical saturation (theoretical sampling).

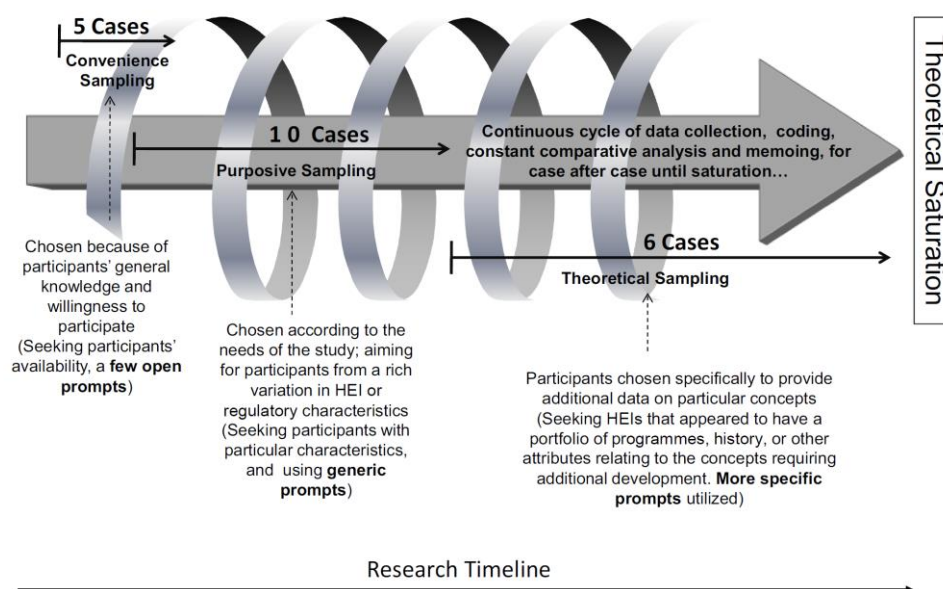


Figure 2. Case sampling strategy. Adapted from Rizzo et al. (2024)

4.1 Data Collection – Interviews

GT as a methodology demands the rigorous application of constant comparison and adherence to the iterative nature of data generation and analysis. The interview design was flexible and open-ended to allow the participants to assume more power over the direction of the conversation (Birks & Mills, 2015, p. 57) and describe their institutional understandings, realities, experiences, strategies and practices. The interviews were the conceptual engine of the study. Several cycles of interviewing and analysis were conducted, with earlier interviews informing later questions and sampling decisions. The qualitative component therefore represented the most substantial part of the data-generation and analysis process. Interviews lasted 45 to 90 minutes. At twenty-one cases, the study approached theoretical saturation. According to Charmaz (2006), categories are 'saturated' when gathering fresh data no longer sparks new theoretical insights, nor reveals new properties of your core theoretical categories (p. 113).

4.2 Data Analysis – In-depth Interviews

Interview data were analysed using MAXQDA (VERBI Software). Each interview was manually transcribed and coded by the researcher immediately, before proceeding to the next case, to preserve the iterative constant-comparative process required by GT (Strauss & Corbin, 1990).

Earlier interviews shaped the questions and sampling decisions that followed and the additional data required. Codes were summarised and grouped into categories. Summaries provided further reflection on emerging codes motivating the generation of memos and identification of links between codes for merging and grouping into categories.

Memos were used to annotate emerging themes that were investigated further in subsequent interviews. This provided a process of reflexivity that increased the focus and analytical depth of the research process (Charmaz, 2006) while identifying insights emerging from the data and guiding future interviews. The coding schema also developed over time through stages of open coding (initial cases), axial coding during the purposive sampling stage and finally selective coding at the theoretical sampling stage. This spurred an evolution of the category schema to a conceptually stronger conditional/consequential matrix at the theoretical sampling stage, where categories were integrated and their properties and dimensions further developed (Strauss & Corbin, 1990), as depicted in Figure 3.

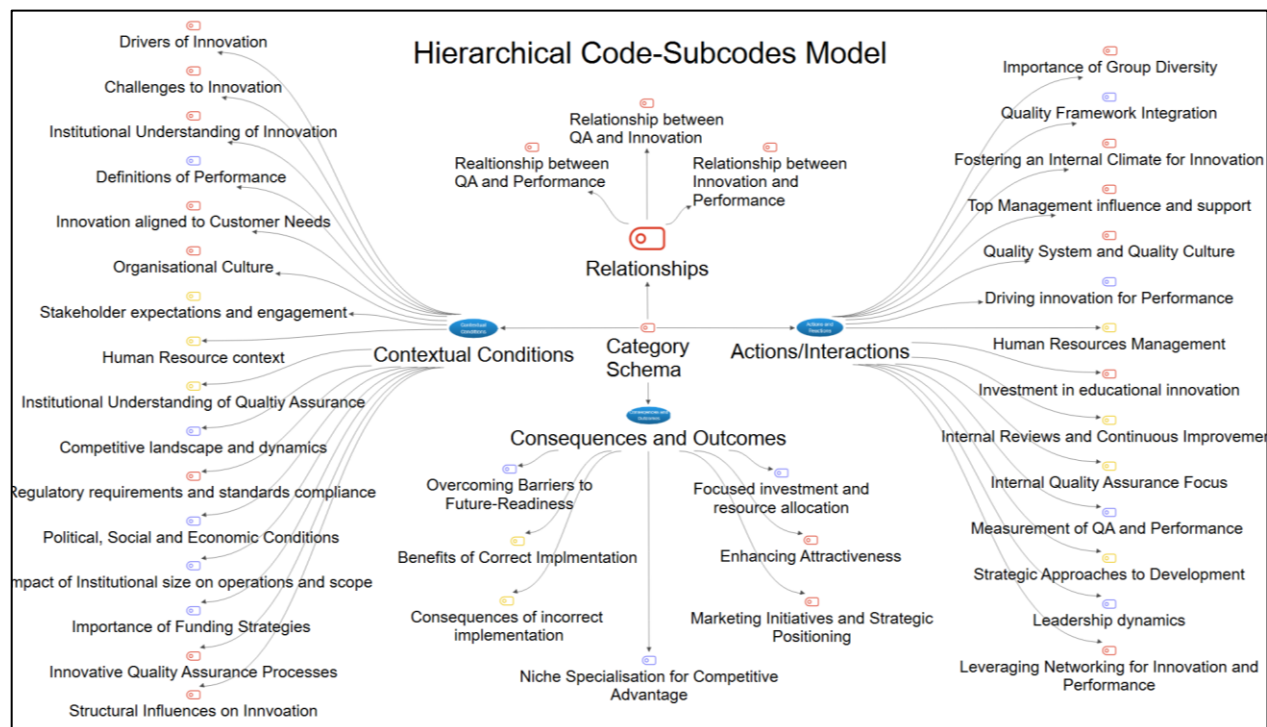


Figure 3. Category schema based on the Conditional Matrix (Strauss & Corbin, 1990)

4.3 Data Collection – Additional Data Sources

Financial reports were obtained through the business registry. Data were collected as soon as the interview was carried out. Four years of financial data were obtained and analysed using sparklines in Microsoft Excel to observe trends and compare patterns across HEIs.

Accreditation data were downloaded from the qualifications database to create a profile of the institution in terms of the type and breadth of programmes offered, indicating how innovative the institution was in terms of programme development and provision. EQA reports were obtained from the regulator that carries out audits on each institution. These were then assessed using a coding frame to convert qualitative data into ordinal values that were used to create radar plots for comparison. Although relatively minor compared to the effort and time required for the interviews, these data were seamlessly integrated into the qualitative analysis as they were used primarily for pattern identification and grouping for further qualitative analysis and comparison as described below.

4.4 Data Analysis of the Additional Data

To evaluate the financial health of the sampled HEIs, a visual trend analysis was conducted using net asset values (NAVs) over a four-year period, obtained from company audited accounts. Given the variance in the absolute size of these institutions, NAVs were visualised using sparklines within Microsoft Excel (Figure 4). This allowed the normalisation of trends, focusing on the direction and velocity of financial movement rather than just the magnitude of assets. The red bars and green bars indicate the lowest and the highest points respectively, shown over time.

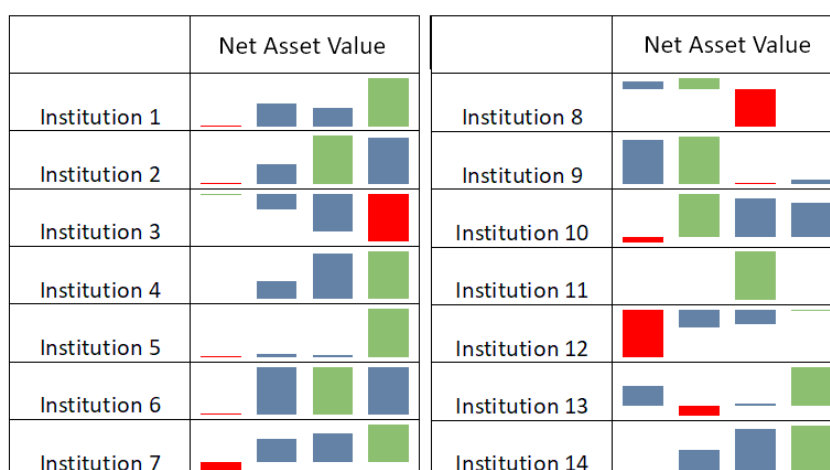


Figure 4. Sample of revenue sparklines for HEIs – Source: Malta Business Registry (MBR)

Institutions were then inductively categorised into five distinct performance archetypes based on their NAV trajectories.

This categorisation facilitated a comparative analysis between the qualitative data obtained from interviews and the quantitative financial realities reported to the Malta Business Registry (MBR) (see Table 2).

Table 2. Cases Categorised by Archetype

Archetype	Cases	Description
No Activity	5, 8, 14	No recorded net assets in MBR
Decline	3, 18	A consistent decline in net asset values
Volatile	10, 11, 20	Large fluctuations in their asset values
High Initial Growth	2, 7	High growth at the beginning, levelling off
Consistent Growth	1, 4, 6, 9, 19, 21	Consistent growth over the years

Programme accreditation data were analysed using cross-tabs generated using pivot-tables in Microsoft Excel. To facilitate a comparative cross-institutional analysis of External Quality Assurance (EQA) reports, a European Standards and Guidelines (ESG) Maturity Coding Frame was developed (Table 3). This frame functions as a translation layer, converting qualitative audit findings for each of the 11 standards into an ordinal scale (0–4). This allowed for the generation of institutional profiles via radar plots, highlighting variance between baseline compliance and surpassing excellence.

Table 3. ESG Maturity Coding Frame

ESG Maturity Coding Frame	Surpasses Standard	Meets Standard	Requires improvement to meet Standard	Does not meet Standard	Final Score
ESG standard	4	2	1	0	

The radar plots were used to compare HEI patterns and group HEIs based on profile pattern similarities informing further analysis of the interview data. A sample radar plot is shown in Figure 5; similar radar plots were compiled for each HEI.

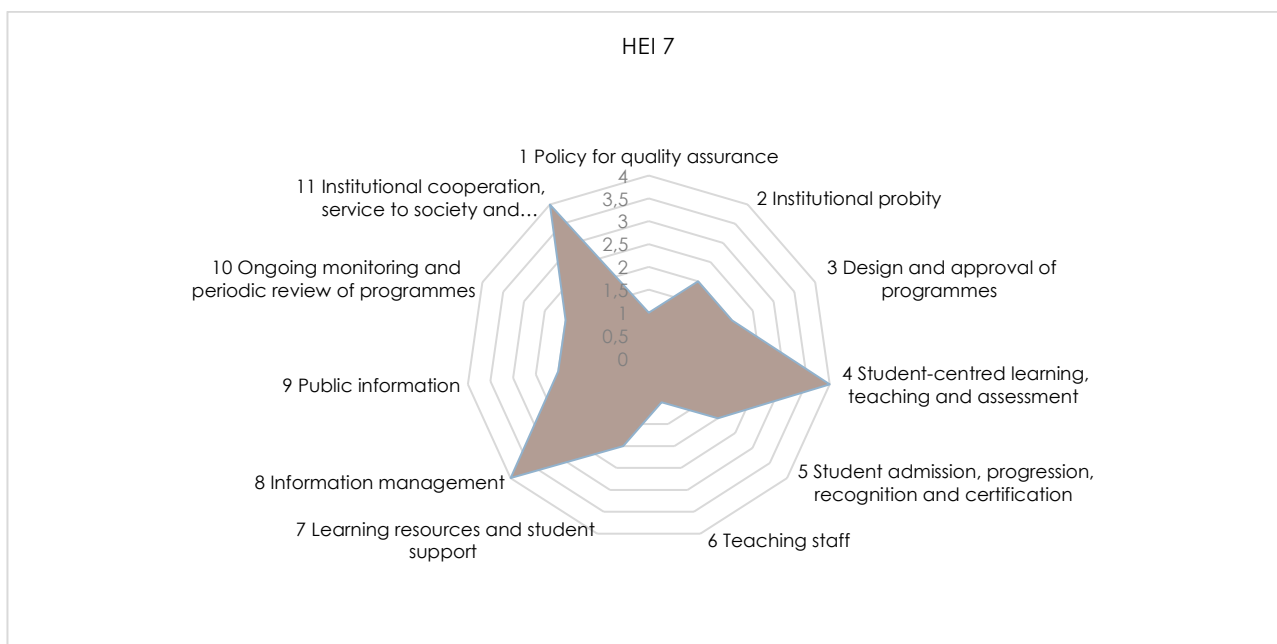


Figure 5. ESG Maturity Radar Plot

4.5 The Taxonomy

The triangulated analysis led to the development of a four-quadrant taxonomy (Figure 6) linking quality assurance readiness, institutional performance, and innovation activity. The taxonomy was not imposed at the beginning of the study. It emerged as an analytical device after the researcher compared interview data with the additional data and vice versa. The vertical axis represents quality assurance readiness; the horizontal axis represents institutional performance while the bubble size represents innovation activity. The taxonomy placed each case empirically within these dimensions and was used to group the interviews into sets that could be compared analytically using MAXQDA.

Four Quadrant Analysis of EQA Score vs Financial Performance with Innovation

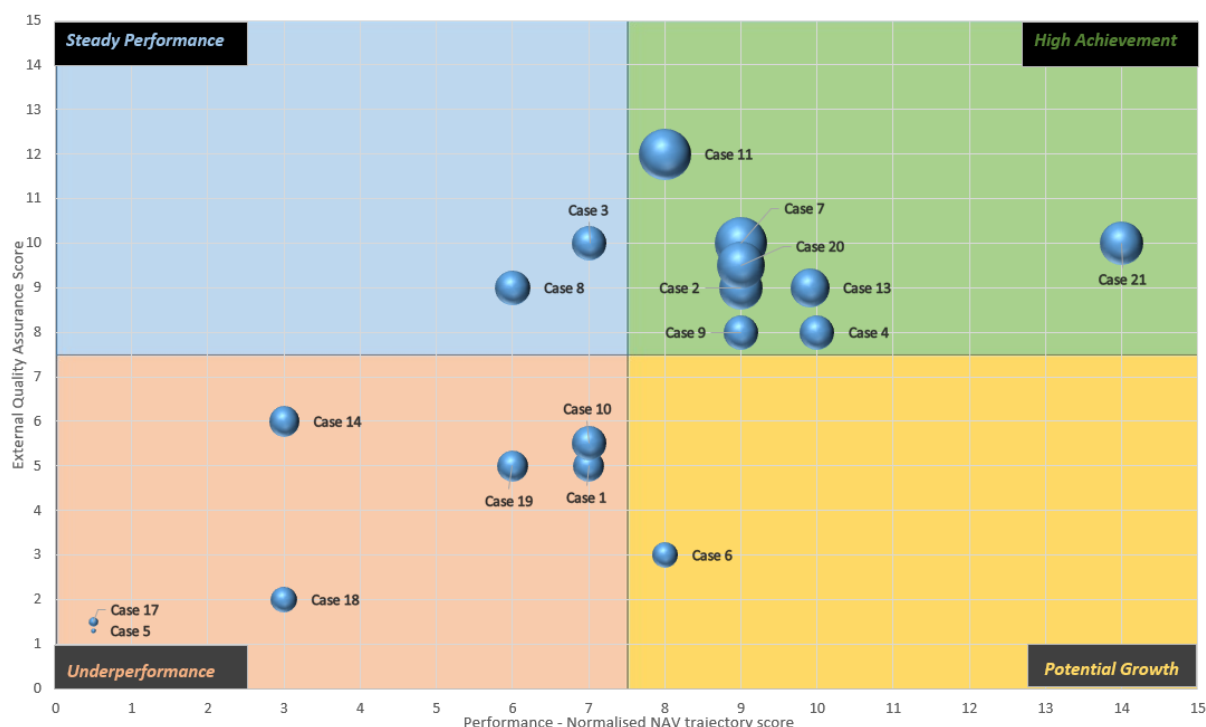


Figure 6. The taxonomy

4.6 Adopting an Integrative Perspective

The groups identified through the taxonomy were used to create document sets in MAXQDA to enable comparisons using the Code Matrix Browser (Figure 7) available in MAXQDA. The Code Matrix Browser was used as a heat map of data incidents, to indicate where the groups identified through the taxonomy differed significantly. Thus, the taxonomy was not treated as a final classification but provided a vital methodological contribution as it allowed the researcher to return to the rich qualitative data to look for commonalities and differences across the taxonomy states.

For example, cases positioned in the high-achievement quadrant were compared with cases in the underperformance quadrant to examine differences in QA meaning-making, strategic orientation, and innovation behaviour. In this way, the taxonomy became an interpretive lens for further comparison rather than a replacement for qualitative interpretation.



Figure 7. The Code Matrix Browser comparing high-achievement (left) to underperformance (right) groups

5. Methodological Contributions

5.1 Qualitative Methodology as the Conceptual Engine

The foundation of this study rests on Glaser’s relentless dictum that “all is data” (Glaser, 2007, p. 1). The study demonstrates that methods triangulation can be incorporated into grounded theory without reducing the centrality of qualitative methodology. Interviews were not simply one data source among several; they were the conceptual engine of the study. They generated the initial incidents, codes, categories, and memos through which the additional data sources became meaningful. Holton and Walsh (2017) argue that this maxim is what sets GT apart as a general methodology, opening a vast realm of data to researchers by utilising slices of data to facilitate analysis and conceptualisation. For the grounded theorist, these are “voices begging to be heard”, serving as an informant to unearth the latent social patterns of the substantive area (Glaser & Strauss, 1967, p. 163). The additional data sources did not speak for themselves. Their methodological value emerged when they were compared with participant accounts and used to sharpen the analysis of institutional meanings, strategies, and responses.

5.2 Methods Triangulation as an Enhancement of the GT Process

The study shows that methods triangulation should not be understood only as a validation strategy. While methods triangulation can support credibility, its value in grounded theory lies in its capacity to enhance analytical capacity through multiple data sources. Patton (1999) cautions against the misconception that triangulation must yield consistent results but asserts that finding inconsistencies (dissonance) or “different real-world nuances” can be illuminating and provide opportunities for deeper insight into the phenomenon (p. 1193). The rigour of a GT study is judged by four criteria established by Glaser (1978): fit, workability, relevance, and modifiability.

Triangulation directly enhances the concept of fit as by comparing diverse slices of data one ensures categories adequately express patterns across multiple sources rather than being forced by a single dataset and the theory can thus cope with more diversity in conditions and exceptions to hypotheses (Glaser & Strauss, 1967). Regarding workability, triangulation ensures the theory explains how the participants' main concerns are resolved under varying conditions. The use of multiple informants and methods ensures the study captures the actual concerns of stakeholders, giving the resulting theory instant grab thus addressing relevance. Finally, modifiability is also addressed as in light of new, triangulated data, the theory remains a provisional probability statement, ready to be modified rather than discarded (Glaser, 2003, p. 143).

5.3 Dissonance and Abductive Reasoning

Dissonance between sources was particularly valuable. In some cases, participant narratives are aligned closely with documentary and financial evidence. In other cases, they diverged. Such divergence was not treated as error or weakness. Instead, it became a trigger for abductive reasoning. Rigour is often sought through confirmability where researchers ensure findings emerge from the data rather than from their own preconceptions (Shenton, 2004, p. 63). One of the benefits of this methods triangulation approach is the ability to leverage dissonance (Creamer, 2022, p. 93). As Patton (1999) notes, inconsistencies between sources are not errors but an opportunity for contextual analysis (p. 1193). Methods triangulation does not merely supplement GT; it fully embraces the “all is data” maxim. It transforms researchers into interpretive bricoleurs, using every tool at their disposal to generate warranted statements that are both convincingly argued and supported by evidence (Denzin & Lincoln, 2005, p. 6). Ultimately, the inclusion of methods triangulation within the constant comparative method results in a theory with greater explanatory power and analytic density (Creamer, 2022, pp. 10–11).

5.4 Methodological Challenges and Limitations

This triangulated GT design also involved limitations. First, the small-island context increased the risk of indirect identification, requiring careful anonymisation and limiting the level of institutional detail that could be reported. Second, financial indicators such as net asset value provide only partial insight into institutional performance. Although useful comparative signals, they do not fully capture educational quality, long-term sustainability, or strategic capacity. Third, accreditation data indicate programme-development activity but do not automatically measure quality or depth of innovation. For this reason, accreditation data were interpreted alongside interviews rather than treated as a direct measure of innovation. Fourth, the quantising of EQA reports simplified complex qualitative judgements into an ordinal scale. This enabled comparison, but it also required caution because such scores cannot capture the full nuance of audit narratives. Fifth, researcher positionality introduced methodological risks.

Familiarity with the field can lead the researcher to assume meanings, overlook taken-for-granted practices, or interpret data too quickly through prior professional knowledge.

These risks were managed through systematic memoing, anonymisation, constant comparison across cases, and deliberate attention to dissonance between data sources. Insider knowledge was therefore treated as a source of theoretical sensitivity rather than as evidence in itself. Finally, the four-quadrant taxonomy, radar plots and sparklines should be understood as analytical devices rather than deterministic classification models. Their value lies in supporting comparison and theoretical development through the in-depth interview data, not in fixing institutions permanently into categories.

5.5 Transferable Lessons for Qualitative Researchers

The study aims to offer a set of specific insights. Additional data sources can indeed be incorporated into grounded theory without converting the study into a mixed methods design, provided they are used within the constant comparative logic of GT. Additionally, methods triangulation can be used analytically, and not merely as a validation technique. Furthermore, dissonance between data sources should be treated as theoretically productive because it can reveal hidden assumptions, contradictions, and processual complexity. The broader methodological lesson is that qualitative research can be strengthened when it is enhanced with additional sources of data, while preserving the interpretive centrality of the qualitative analysis. In small and data-sensitive contexts, this approach allows researchers to generate richer and more credible theory without sacrificing conceptual depth.

6. Final Considerations

This article has demonstrated how methods triangulation can be operationalised within a GT framework while retaining qualitative methodology as the central engine of theory generation. The empirical context concerned QA, innovation and performance in small HEIs, but the article's main contribution is methodological. It shows that non-interview data can be incorporated into GT without becoming independent mixed-method strands. EQA reports, accreditation data and financial reports acted as comparative slices of data. They supported constant comparison, revealed dissonance, informed theoretical sampling, stimulated abductive reasoning, and contributed to category refinement. The methodological contribution is therefore threefold.

First, the article provides a procedural example of how methods triangulation can be integrated into grounded theory. Second, it shows how dissonance between data sources can become a driver of abductive reasoning rather than a threat to validity. Third, it offers transferable guidance for qualitative researchers working in small, regulated, and institutionally sensitive contexts.

In conclusion, methods triangulation does not simply supplement GT; it fulfils its potential as a general methodology as advocated by Glaser.

It transforms the researcher into an “interpretive bricoleur” (Denzin & Lincoln, 2005, p. 6), capable of navigating between the subjective and the objective to unearth latent social patterns.

Future research may further explore how visual tools, documentary data, and quantised qualitative evidence can be incorporated into grounded theory without weakening its qualitative foundations. The key condition is that such tools must remain subordinate to conceptual development, theoretical sampling, memoing, and constant comparison.

Ethical Approval: The empirical material used in this methodological article was drawn from an underlying doctoral study approved by the Research Ethics Committee of the Malta College of Arts, Science and Technology (MCAST; approval reference CDRSH-706-1805, 6 May 2022). The present article involved no additional primary data collection and therefore did not require separate ethical approval.

Informed Consent: Informed consent was obtained from all twenty-one participants in the underlying doctoral study, in line with institutional ethics requirements, ensuring respect for the principles of confidentiality, voluntariness, and anonymity.

Declaration of Conflicts of Interest: The authors declare that there are no conflicts of interest regarding the research, authorship, or publication of this article. The material has not been published, in whole or in part, elsewhere and is not currently under consideration for publication in any other journal. All authors were personally and actively involved in the work that led to this article and assume responsibility for its content. All ethical standards concerning the protection of participants in the underlying studies were implemented in accordance with the European Code of Conduct for Research Integrity (ALLEA, 2023).

Use of Artificial Intelligence (AI): An artificial intelligence (AI) tool, Google Gemini, was used solely to support the academic writing, textual formulation, and organisational layout of the final draft of this paper, in line with the publication guidelines. This did not replace the critical analysis, data interpretation, methodological decisions, or the academic responsibility of the authors, who fully assume authorship and the integrity of the content presented.

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