

Enhancing Inclusive Talent Management and Financial Management Literacy through Digitalization to Improve Human Resource Performance

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Abstract

Purpose: This study aims to examine how strengthening inclusive talent management and financial management literacy through digitalization can improve human resource performance at TK Aisyiyah X Jaten Karanganyar.

Research Methodology: A descriptive qualitative approach with a case study design was employed. Data were collected through Focus Group Discussions and in-depth interviews with the principal, teachers, and administrative staff. The data were analyzed using NVivo 14 through data reduction, coding, data display, verification, and thematic analysis.

Results: The findings identified four major themes: management, development, finance, and performance. Management emphasized the importance of communication, teachers' roles, and organizational structure. Development highlighted the need for continuous digital training despite challenges such as limited facilities and resistance to change. Finance showed that financial literacy and administrative digitalization were essential for transparency and accountability. Performance stressed the value of digital-based evaluation in monitoring teacher competence, training outcomes, and the effectiveness of digital transformation.

Conclusions: Digitalization functions as the key link connecting talent management, financial literacy, and performance evaluation. It is therefore necessary for TK Aisyiyah X Jaten Karanganyar to pursue sustainable educational transformation, strengthen financial literacy, and consistently apply technology-based performance evaluation.

Limitations: The study focused on a single institution, which limits the broader generalizability of the findings.

Contributions: This study contributes to educational management by providing insights into inclusive talent management, financial literacy, and digital transformation in early childhood education. The findings may inform school leaders, teachers, administrative staff, and policymakers in developing more effective and sustainable institutional strategies.

Keywords: *Digitalization, Educational Personnel, Financial Management Literacy, Human Resource Performance, Inclusive Talent Management*

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1. Introduction

Improving the quality of early childhood education requires more than curriculum refinement and pedagogical innovation; it also depends on the capacity of educational institutions to manage, develop, and retain competent human resources. In early childhood education settings, teachers and educational staff are central actors who translate institutional goals into daily educational practices. Therefore, human resource management should not be treated merely as an administrative function, but as a strategic mechanism for strengthening institutional quality, teacher professionalism, and sustainable educational performance.

Within this context, talent management has become increasingly relevant in educational institutions. Teacher talent management refers to a multidimensional organizational process involving attraction, selection, professional development, succession planning, retention, evaluation, and knowledge management. Recent empirical work shows that teacher talent management contributes to teacher performance and student-related outcomes, while also revealing that many schools still face weaknesses in teacher development and succession planning. [Liechti and Sesé \(2026\)](#) This indicates that talent management in schools should be understood not only as a staffing mechanism, but also as an integrated system for developing teacher competence, supporting professional growth, and sustaining institutional performance.

However, talent management in small educational institutions cannot be separated from the broader organizational conditions in which teachers work. Professional development, reward systems, training opportunities, and performance evaluation require adequate managerial capacity and financial support. In many small non-profit educational institutions, including early childhood education institutions, financial management is often constrained by limited administrative capacity, manual recording systems, and uneven financial literacy among school stakeholders. These conditions may weaken transparency, accountability, and the school's ability to allocate resources for teacher development. Thus, financial management literacy becomes an important managerial capability that supports the sustainability of talent development and institutional performance.

Digitalization further changes the way educational institutions manage human resources and financial administration. Studies on digital transformation in education show that the integration of digital technologies affects not only teaching and learning, but also school capacity, stakeholder roles, organizational readiness, and institutional transformation ([Timotheou et al., 2023](#)). In the field of human resource management, digital HRM has also been positioned as more than an administrative tool, because it can enhance efficiency, communication, resource optimization, digital culture, and sustainable performance. [Kisahwan, Priatna, Roswinna, Winarno, and Hermana \(2025\)](#) these findings suggest that digitalization can function as an enabling mechanism that connects talent management, financial governance, and performance evaluation ([García & Pérez-Oleaga, 2025](#)).

Despite the growing attention to talent management, digital transformation, and financial literacy, the existing literature still shows three important gaps. First, most studies on teacher talent management focus on recruitment, retention, professional development, or performance as separate managerial domains, while limited attention has been given to how talent management is connected with financial literacy and digital governance in small early childhood education institutions. Second, digitalization studies in education tend to emphasize learning technology, digital leadership, or institutional transformation at larger school or higher education levels, whereas the role of digitalization as a bridge between human resource development and financial management in early childhood education remains underexplored. Third, financial literacy research has largely focused on individual financial behavior or financial education outcomes, while relatively little is known about how financial management literacy among school stakeholders supports institutional accountability and human resource performance. Recent evidence also suggests that financial education initiatives often produce only short-term improvements unless they are supported by sustainable follow-up strategies and institutional reinforcement.

These gaps are particularly important in the context of community-based early childhood education institutions, where school leaders, teachers, and administrative staff often perform multiple roles with

limited resources. In such settings, improving human resource performance requires an integrated managerial approach that aligns inclusive talent management, financial management literacy, and digitalization. However, empirical understanding of this integration remains limited. Therefore, this study positions TK Aisyiyah X Jaten Karanganyar as an information-rich case for examining how a small early childhood education institution strengthens human resource performance through the interaction of talent management, financial literacy, and digitalization.

Accordingly, this study aims to examine how inclusive talent management and financial management literacy are strengthened through digitalization to improve human resource performance at TK Aisyiyah X Jaten Karanganyar. Specifically, this study addresses the following research questions:

1. How is inclusive talent management implemented in the context of a small early childhood education institution?
2. How does financial management literacy support human resource development and institutional accountability?
3. How does digitalization connect talent management, financial literacy, and human resource performance?

This study contributes to the literature on educational management and human resource management by offering an integrated understanding of digitalization-enabled inclusive talent management in early childhood education. Rather than treating talent management, financial literacy, and digitalization as separate domains, this study explains how these three dimensions interact as a managerial system for improving human resource performance in a small community-based educational institution.

2. Literature Review

Amid the accelerating pace of organizational change, talent management has evolved into a strategic pillar for building competitive advantage rather than merely serving as an administrative function. In the contemporary literature, [Anthony McDonnell and Wiblen \(2020\)](#) define talent management as a series of crucial processes designed to ensure that organizations are able to place individuals with specific expertise and high strategic value in vital positions. Its fundamental objective is to cultivate future leaders and develop superior teams that are responsive to a competitive business environment. Failure to manage talent in a structured manner, beginning from identification and development to retention efforts, will make it difficult for organizations to address the competency gaps that exist across generations.

The effectiveness of talent management implementation and optimal competency development is highly dependent on investment commitment to improving the quality of human resources ([Collings, 2017](#)). [Collings, 2017](#) explicitly underline that training is a fundamental method essential for achieving higher levels of efficiency and performance effectiveness. Findings from empirical studies provide strong evidence that training interventions can dramatically improve employees' level of understanding, as reflected in an increase from 20% to 80%. Consequently, their ability to formulate strategic performance plans also improves significantly. This implicitly confirms that the enhancement of both soft skills and technical competencies through continuous educational pathways is an absolute necessity for achieving inclusive organizational growth.

The role of leadership is not limited to technical competence but also extends to the development of vital psychological dimensions. Findings by [Z. Widodo, Adiyani, and Katili \(2021\)](#) indicate that transformational leadership has a substantial influence on the development of organizational trust. Trust that emerges from leader-subordinate relationships become a key pillar of employees' affective commitment. Employees who feel trust are more likely to adopt positive behaviors and attain higher levels of performance while reducing the incidence of internal conflict. Conversely, a lack of trust may weaken commitment, which in turn leads to a decline in work productivity.

Human resource performance in organizational operations is influenced by a combination of internal and external factors. [Z. D. Widodo et al. \(2022\)](#) confirm that work discipline, prior experience, and wage levels have a significant positive effect on employee productivity. Another notable finding is that

work experience proved to be the most influential variable, unlike age, which did not show statistical significance. Consistent with the study by [Z. D. Widodo, Lusia, Tri Wulandari, and Fadhlurrahman \(2025\)](#), work motivation, work stress management, and discipline jointly contributed 64.8% to the improvement of employee performance. Therefore, synergy between the enforcement of discipline, fair compensation, and the effective use of work experience is crucial for optimizing human resource performance.

Recent studies in human resource management suggest that inclusive talent management in educational institutions should be understood as an integrated system that combines career development, knowledge management, and equitable performance governance. [Guerta and Baguio \(2025\)](#); [Hutasoit, Satriawan, Khaddafi, and Friadi \(2025\)](#) proposes a technology-based career development model showing that digital HR systems can strengthen teacher and staff retention, motivation, and performance through more transparent and structured career pathways. In a similar educational setting, [Andini, Mukayah, and Ismail \(2025\)](#) demonstrate that knowledge management and performance management enhance employee career development by strengthening competence and encouraging growth motivation. From an inclusion perspective, [Dewi, Kumalasari, and Setyanti \(2025\)](#) found that career development, rewards, and punishment significantly affect employee performance, while gender-based differences in reward perceptions indicate the importance of fair and equitable HR policies. Taken together, these findings imply that inclusive talent management is not merely about staffing decisions, but about building transparent career systems, continuous competence development, and justice-sensitive performance practices.

Digitalization further acts as the connecting mechanism between talent development, financial governance, and performance improvement. [Ardi Wiranata, Bambang, Muamar, and John \(2025\)](#) report that innovative behavior significantly affects employee performance, while digital competence and work environment shape work motivation, indicating that digital readiness functions as an enabling condition for stronger HR outcomes. In the financial domain, [Titi and Oman \(2022\)](#) show that the adoption of the Siperkasa school financial management application is influenced by technology acceptance factors, especially ease of use and perceived usefulness, which are important for strengthening accountability in school finance systems. This is reinforced by [Cindy and Purwo Adi \(2025\)](#), who found that financial literacy significantly improves financial management and financial self-efficacy. Therefore, in the context of early childhood education, digitalization should not be positioned merely as administrative modernization, but as a strategic lever for strengthening inclusive talent management, financial management literacy, and, ultimately, human resource performance.

3. Methodology

3.1 Research Design

This study employed a qualitative single-case study design to explore how inclusive talent management and financial management literacy are strengthened through digitalization to improve human resource performance at TK Aisyiyah X Jaten Karanganyar. A qualitative design was considered appropriate because the purpose of this study was to understand participants' experiences, perceptions, meanings, and institutional practices within a specific organizational context rather than to test causal relationships among variables. A single-case study design was selected because the study focused on one bounded educational institution as an information-rich case. Case study research is appropriate when researchers seek to investigate a contemporary phenomenon in depth within its real-life context, particularly when the boundaries between the phenomenon and its context are closely connected. Yin emphasizes that case study design is suitable for investigating complex organizational phenomena through multiple sources of evidence and careful contextual interpretation ([Phelan, 2011](#)). In this study, TK Aisyiyah X Jaten Karanganyar was treated as a bounded case. The unit of analysis was the institutional process through which school leaders, teachers, and administrative staff implemented talent development, financial literacy practices, and digitalization to support human resource performance.

3.2 Research Site and Case Context

The research was conducted at TK Aisyiyah X Jaten Karanganyar, an early childhood education institution located in Karanganyar, Central Java, Indonesia. This site was selected because the

institution has been involved in teacher capacity development, internal communication improvement, financial administration strengthening, and gradual digitalization of school management practices. The case was bounded by three interrelated areas of institutional practice:

1. inclusive talent management and teacher development;
2. financial management literacy and administrative accountability; and
3. digitalization as a supporting mechanism for communication, documentation, evaluation, and performance monitoring.

This case boundary is important because qualitative case study research requires a clear definition of the phenomenon, the institutional context, and the unit of analysis to avoid overly broad and unfocused interpretation.

3.3 Participants and Sampling Technique

Participants were selected using purposive criterion-based sampling. This technique was used because the study required participants who had direct knowledge and experience of school management, teacher development, financial administration, and digitalization practices. In qualitative research, purposive sampling is appropriate when participants are selected based on their relevance to the research focus and their ability to provide rich, contextual, and meaningful information.

The inclusion criteria were as follows:

1. Participants were actively involved in the management or operation of TK Aisyiyah X Jaten Karanganyar
2. Participants had direct experience with teacher development, school administration, financial management, or digital work practices
3. Participants were willing to participate in focus group discussions or in-depth interviews

The participants consisted of the principal, treasurer or administrative staff, and teachers. In total, the study involved nine participants representing key internal stakeholders of the school. This number was considered adequate for a qualitative single-case study because all participants were directly involved in the phenomenon being studied and provided information relevant to the research questions, the following can be seen in the table 1.

Table 1. Participant Profile

Code	Position	Main Institutional Role	Data Source
P1	Principal	School leadership, policy direction, teacher development	Interview and FGD
P2	Treasurer/Administrative Staff	Financial administration, reporting, and documentation	Interview and FGD
P3	Teacher	Teaching, digital learning practice, school programs	Interview and FGD
P4	Teacher	Teaching and professional development activities	Interview and FGD
P5	Teacher	Classroom practice and school administration	Interview and FGD
P6	Teacher	Learning implementation and internal coordination	Interview and FGD
P7	Teacher	Teacher collaboration and training participation	Interview and FGD
P8	Teacher/Staff	Administrative support and digital documentation	Interview and FGD

P9	Teacher/Staff	Program implementation and performance evaluation	Interview and FGD
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3.4 Data Collection Procedures

Data were collected through focus group discussion, semi-structured in-depth interviews, and supporting institutional documents. The use of multiple sources of evidence was intended to strengthen data triangulation and provide a more comprehensive understanding of the phenomenon. First, one focus group discussion was conducted with the principal, teachers, and administrative staff. The FGD was designed to explore shared perceptions regarding human resource development, financial management literacy, digitalization challenges, and performance evaluation. Focus group discussion is useful for exploring collective experiences, shared meanings, and interactional perspectives among participants. Guest et al. provide empirical evidence that a small number of well-structured focus groups can capture a substantial proportion of major themes, especially when the participant group is relatively homogeneous and the discussion guide is focused (Guest, Namey, & McKenna, 2017).

Second, semi-structured in-depth interviews were conducted to obtain more detailed individual narratives. The interviews explored participants' experiences in teacher development, digital work practices, financial administration, institutional communication, and performance evaluation. The semi-structured format enabled the researchers to maintain consistency across participants while allowing flexibility to probe emerging issues in greater depth. Third, institutional documents were reviewed to contextualize and verify the interview and FGD data. The documents included administrative records, financial documentation, internal meeting notes, training-related documents, and digital documentation used by the school. Document review was used as supporting evidence to strengthen the interpretation of participant narratives.

Table 2. Data Collection Summary

Data Source	Participants/Data Involved	Focus of Data Collection	Duration
Focus Group Discussion	Principal, teachers, and administrative staff	Shared perceptions of HR development, financial literacy, digitalization, and performance issues	Approximately 90–120 minutes
In-depth Interviews	Principal, treasurer/administrative staff, and teachers	Individual experiences, perceptions, and reflections	Approximately 30–60 minutes per interview
Document Review	School administrative, financial, and training documents	Supporting evidence and triangulation	During fieldwork

Table 2 shows interviews and FGD data were documented through field notes and, where permitted, audio recordings. The recordings were transcribed verbatim and checked manually before being imported into NVivo 14 for coding and thematic analysis.

3.5 Data Saturation

Data collection was continued until thematic saturation was reached. Saturation was determined when no substantially new codes, categories, or themes emerged from the final interviews and when the four main themes management, development, finance, and performance were repeatedly confirmed across participants and data sources. The rationale for saturation was based on three considerations. First, the participants represented the key internal stakeholders directly involved in the school's human resource and financial management processes. Second, repeated patterns appeared across FGD, interview, and document data. Third, additional data did not generate new substantive insights beyond the established categories. This approach is consistent with qualitative saturation literature, which emphasizes that sample adequacy in qualitative research should not be determined solely by numerical size, but by the richness, relevance, and redundancy of information. That saturation in qualitative interview studies is

often achieved within a relatively focused sample, depending on the homogeneity of participants, clarity of research scope, and depth of data collection ([Hennink & Kaiser, 2022](#)). Therefore, the dataset was considered sufficient to answer the research questions within the boundaries of a qualitative single-case study.

3.6 Data Analysis

The data were analyzed using thematic analysis supported by NVivo 14. Thematic analysis was selected because it enables researchers to identify, analyze, and interpret patterns of meaning across qualitative data. Braun and Clarke emphasize that thematic analysis requires careful conceptual and design thinking, particularly in linking research questions, coding decisions, theme development, and interpretation ([Clarke & Braun, 2021](#)). Kiger and Varpio also explain that thematic analysis is a flexible and useful method for qualitative data analysis when researchers aim to organize and interpret patterned meanings in textual data ([Kiger & Varpio, 2020](#)).

The analysis followed six stages. First, the researchers familiarized themselves with the data by reading the transcripts repeatedly and comparing them with field notes. Second, initial codes were generated from meaningful segments of the data. Third, similar codes were grouped into NVivo nodes and subnodes. Fourth, the researchers reviewed and refined the codes into broader categories. Fifth, the categories were developed into themes that reflected the relationship among talent management, financial literacy, digitalization, and human resource performance. Sixth, the themes were interpreted in relation to the research questions, theoretical concepts, and prior studies.

NVivo 14 was used to support systematic data organization, coding, retrieval, and visualization. However, NVivo was not treated as a substitute for researcher interpretation. Thematic analysis requires more than simply labeling data; it demands rigorous interpretation, systematic coding, and meaningful theme development ([Castleberry & Nolen, 2018](#)). Accordingly, NVivo was used as an analytical support tool, while final interpretation remained grounded in the researchers' reading of the data and the institutional context. The coding process generated four major themes: management, development, finance, and performance. These themes were interpreted not only based on coding frequency, but also based on their substantive meaning, distribution across data sources, and relevance to the research questions.

3.7 Trustworthiness

To ensure methodological rigor, this study applied four trustworthiness criteria: credibility, dependability, confirmability, and transferability. These criteria are widely used in qualitative research to demonstrate that findings are credible, consistent, grounded in the data, and meaningfully contextualized. Identify credibility, transferability, dependability, and confirmability as core quality criteria in qualitative research, while also emphasizing the importance of reflexivity ([Korstjens & Moser, 2018](#)). That trustworthy thematic analysis requires researchers to conduct analysis in a precise, consistent, and exhaustive manner and to disclose analytical procedures clearly ([Nowell, Norris, White, & Moules, 2017](#)).

Credibility was strengthened through source triangulation, method triangulation, and member checking. Source triangulation was conducted by comparing information from the principal, teachers, and administrative staff. Method triangulation was conducted by comparing data from FGD, in-depth interviews, and institutional documents. Member checking was carried out by asking selected participants to review whether the emerging interpretations reflected their experiences and institutional realities. Dependability was ensured by maintaining an audit trail throughout the research process. The researchers documented the procedures of participant selection, data collection, transcription, coding, theme development, and interpretation. NVivo 14 supported this process by storing coding structures, nodes, subnodes, analytical memos, and visual outputs.

Confirmability was strengthened through reflexive notes and peer debriefing. Reflexive notes were used to record the researchers' assumptions, analytical decisions, and interpretive reflections during the coding process. Peer debriefing was conducted by discussing coding results, emerging themes, and

interpretations among members of the research team to minimize individual bias and ensure that the findings were grounded in the data. Transferability was addressed through thick description of the research context, institutional characteristics, participant roles, case boundaries, and data collection procedures. Although the findings are not intended for statistical generalization, thick description allows readers to assess whether the findings may be relevant to similar early childhood education institutions, the following can be seen in the table 3.

Table 3. Trustworthiness Strategies

Criterion	Strategy	Implementation in This Study	Supporting Reference
Credibility	Source triangulation, method triangulation, member checking	Comparing data from the principal, teachers, staff, FGD, interviews, and documents; confirming interpretations with participants	(Korstjens & Moser, 2018)
Dependability	Audit trail	Documenting sampling, data collection, transcription, coding, theme development, and interpretation	(Nowell et al., 2017)
Confirmability	Reflexive notes and peer debriefing	Recording analytical reflections and discussing coding decisions with the research team	(Korstjens & Moser, 2018)
Transferability	Thick description	Describing institutional context, participant roles, and case boundaries	(Korstjens & Moser, 2018)

3.8 Ethical Considerations

The study was conducted in accordance with ethical principles for qualitative research. Participants were informed about the purpose of the study, the voluntary nature of their participation, and their right to withdraw from the study. Confidentiality was maintained by using participant codes instead of personal names. The data were used only for academic purposes, and findings were reported in a way that avoided direct identification of individual participants.

4. Results and Discussions

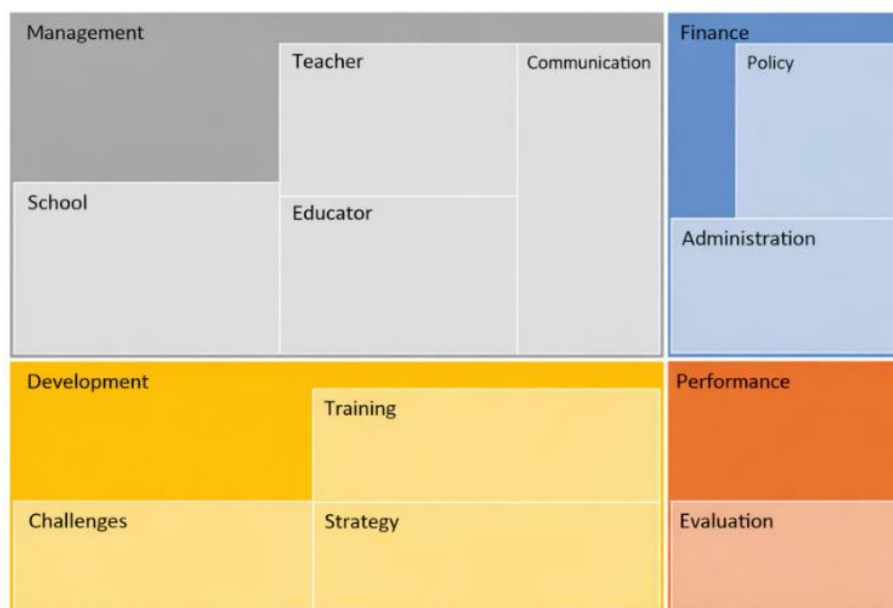


Figure 1. Hierarchy chart

Based on the hierarchy chart generated from the NVivo analysis, the research data were distributed into four main themes, namely management, development, finance, and performance. Visually, the management theme appeared as the most dominant cluster, followed by development, and then finance

and performance. The dominance of the area occupied by the management theme in the hierarchy chart indicates that management-related issues received the largest proportion of coding compared with the other themes, suggesting that this theme constituted the main focus in participants' narratives. Within the management theme, the most prominent subthemes included school, teachers, educators, and communication. These findings indicate that human resource strengthening was primarily perceived through the dimensions of institutional governance, the role of educational actors, and internal communication patterns.

The development theme emerged as the second-largest cluster, with the main subthemes consisting of training, challenges, and strategy. This structure shows that the process of enhancing human resource capacity was not understood merely as a technical need, but also as an adaptive process involving obstacles and strategic responses. The dominance of the training subtheme suggests that competency improvement was the need most frequently articulated by participants, particularly in relation to capacity strengthening aligned with the demands of digitalization. Meanwhile, the emergence of the challenges and strategy subthemes reflects institutional awareness that human resource development requires systematic handling rather than incidental intervention.

Within the finance theme, the hierarchy chart displayed two main subthemes, namely policy and administration. Although its proportion was smaller than that of management and development, this theme still demonstrated substantive significance in the data. This suggests that financial literacy and financial governance were understood as integral parts of human resource strengthening. The emphasis on policy indicates the importance of regulatory frameworks and decision-making in financial management, whereas administration reflects the need for orderly record-keeping, reporting, and operational management that support institutional accountability.

The performance theme appeared to be more specifically focused on the subtheme of evaluation. This pattern indicates that discussions of performance were primarily understood through processes of assessment, monitoring, and measurement of achievements. Thus, in the context of this study, performance was not positioned as an isolated entity, but rather as an outcome of strengthened management, effective development, and orderly financial governance. Overall, the hierarchy chart indicates that the process of institutional transformation took place through interrelated relationships among organizational governance, human resource capacity building, financial management, and performance evaluation.

Table 4. Matrix Coding Query Results

Codes	Number of coding references	Aggregate number of coding references	Number of items coded	Aggregate number of items coded
Codes\Finance	12	42	3	9
Codes\Finance\Administration	15	15	7	7
Codes\Finance\Policy	14	14	8	8
Codes\Performance	29	49	8	8
Codes\Performance\Evaluation	20	20	8	8
Codes\Management	60	377	9	9
Codes\Management\Teacher	82	82	9	9
Codes\Management\Communication	16	16	8	8
Codes\Management\Educator	94	94	8	8
Codes\Management\School	125	125	9	9
Codes\Development	29	125	9	9
Codes\Development\Training	56	56	9	9
Codes\Development\Strategy	24	24	8	8

Codes\Development\Challenges	16	16	9	9
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Based on the Table 4 Matrix Coding Query in the NVivo analysis, the thematic structure of the data revealed four main themes: Management, Development, Performance, and Finance. In interpreting this output, the number of coding references represents the frequency with which a theme appeared across the dataset, whereas the number of items coded indicates the distribution of the theme across data sources or participants. Meanwhile, the aggregate number of coding references and aggregate number of items coded reflect the cumulative occurrences of the parent node together with all of its subnodes. Thus, the interpretation is based not only on how often a theme appears, but also on how widely it is distributed throughout the data.

The results show that Management was the most dominant category. Directly, this theme had 60 coding references and was distributed across 9 data items, while in aggregate it reached 377 coding references with coverage across 9 data items. This dominance confirms that participants' narratives were largely centered on issues of institutional governance as the foundation for strengthening human resources. At the subtheme level, School emerged as the most dominant code with 125 coding references across 9 items, followed by Educators with 94 coding references across 8 items, Teachers with 82 coding references across 9 items, and Communication with 16 coding references across 8 items. This pattern indicates that the management dimension in this study was primarily understood through institutional capacity, the roles of educational actors, and the quality of internal communication.

The Development theme occupied the second most dominant position. Directly, this theme had 29 coding references across 9 data items, while in aggregate it reached 125 coding references across 9 items. Its dominance was mainly supported by the subtheme Training, which accounted for 56 coding references across 9 items, followed by Strategy with 24 coding references across 8 items, and Challenges with 16 coding references across 9 items. These findings suggest that human resource development was primarily understood as a capacity-building process oriented toward training, but in practice it was always confronted by certain obstacles and therefore required adaptive institutional strategies.

The Performance theme was situated at a moderate level of intensity. The main Performance node had 29 coding references distributed across 8 data items, while its aggregate value reached 49 coding references. Its main subtheme, Evaluation, appeared 20 times across 8 data items. This configuration shows that discussions of performance in the research data were largely mediated through evaluation practices. In other words, performance did not merely appear as a normative output, but rather as a result that must be systematically measured, monitored, and reflected upon.

The Finance theme demonstrated a relatively lower intensity compared with the other three themes, yet it still possessed substantive significance. Directly, the Finance node had 12 coding references across 3 data items, but in aggregate this increased to 41 coding references with coverage across 9 data items. The Administration subtheme was recorded 15 times across 7 items, whereas Policy appeared 14 times across 8 items. The difference between the relatively low occurrence of the parent node and the higher aggregate value indicates that financial issues were not often discussed in general terms, but more frequently emerged in more concrete forms, namely administration and policy. This suggests that financial management literacy in the context of this study was more strongly understood as an operational and regulatory governance practice.

When ranked according to the aggregate number of coding references, the relative strength of the themes in this study was as follows: Management (377), Development (125), Performance (49), and Finance (41). These findings indicate that the main focus of the data lay in institutional governance and human resource capacity strengthening, while performance and finance functioned as supporting themes that reinforced the sustainability of program implementation. On the other hand, the distribution of themes across 8–9 data items suggests that these themes were not sporadic, but rather consistently appeared across nearly all of the analyzed data sources.



Figure 2. Word cloud

The word cloud visualization generated from the NVivo analysis showed that the most dominant words in the dataset were management, performance, teacher, educator, and training. The prominence of these words indicates that the main focus of participants' narratives was related to institutional governance, the roles of educational actors, and efforts to improve human resource capacity. In addition, the appearance of words such as talent, strategy, evaluation, development, administration, finance, school, and challenges suggests that the discussion also encompassed dimensions of strategic planning, operational governance, and program evaluation. Substantively, this pattern confirms that human resource strengthening in this study was understood as a process grounded in institutional management, competency development through training, and adequate administrative and financial support. Nevertheless, it should be noted that a word cloud fundamentally represents the frequency of word occurrence; therefore, its interpretation needs to be combined with deeper thematic analysis in order to explain the substantive meaning of each theme more comprehensively.

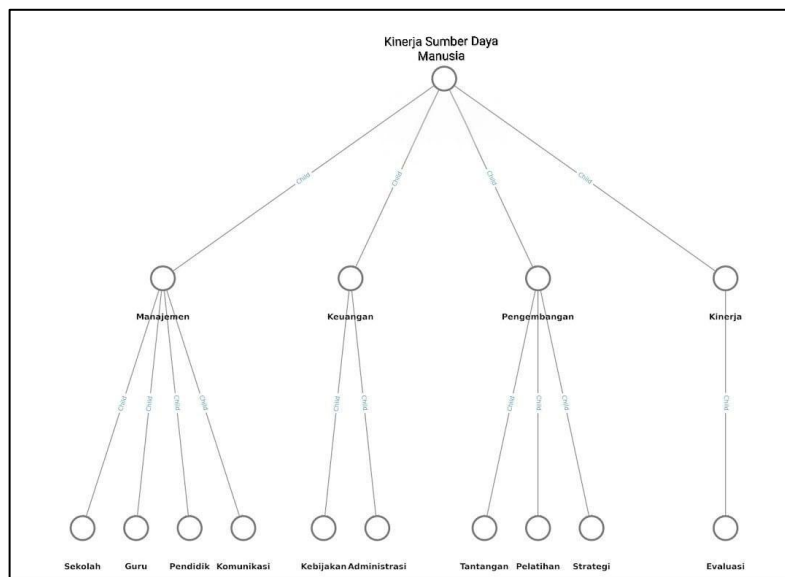


Figure 3. Project map of human resource performance

In the Project Map, the management theme emerged as the dominant cluster in the study, indicating that various aspects of school governance, namely teachers, educators, communication, and school structure, played a central role in talent development. This is consistent with the explanation of [Koh, Razak, and](#)

[binti Shamsudin \(2024\)](#) who argue that talent management is largely determined by an organization's capacity to build a work ecosystem that supports the identification, development, and retention of talent. In the school context, teachers and educators constitute the main actors within this ecosystem; therefore, it is reasonable that the data show a high number of references related to teachers and educators as the primary objects of attention.

The inclusion of communication as a dominant subtheme indicates that the success of talent management is influenced by the smooth flow of communication. The quality of internal communication affects coordination, collaboration, and the delivery of information between teachers and school management. This is reinforced by the study of ([Elsa & Hadid, 2024](#)), which emphasizes that digital communication can improve transparency, coordination efficiency, and access to information within educational institutions. In the context of TK Aisyiyah X Jaten Karanganyar, digitalization has enabled faster communication through online platforms, coordination groups, and the use of school administration applications, thereby fostering a more inclusive and responsive work culture.

The second prominent theme was finance, with the subthemes of policy and administration. This indicates that financial management literacy is an important area that needs to be strengthened, especially in the context of digitalization. Strengthening financial literacy within the school environment is crucial to ensure that budget management is accountable, well-planned, and efficient. According to [Lusardi and Mitchell \(2023\)](#), financial literacy in educational institutions not only supports transparency but also enhances the ability of school staff to manage funds appropriately and effectively. Digitalization provides opportunities to improve the quality of financial governance through digital recording applications, automated reporting systems, and online financial dashboards that can be more easily monitored, controlled, and evaluated by stakeholders.

The third theme, Development, included the subthemes Training, Challenges, and Strategy, and formed one of the largest clusters in the treemap. This theme illustrates that human resource development is an urgent need in improving the quality of talent management and financial literacy at TK Aisyiyah X Jaten Karanganyar. The more dominant appearance of the Training subtheme indicates that improving teachers' competencies, especially in digital literacy, was a top priority. This finding is in line with the study by [Gudmundsdottir, Gassó, Rubio, and Hatlevik \(2020\)](#), which found that digital-based training can significantly improve teachers' professional skills, particularly in technological adaptation and modern learning management. However, the presence of the Challenges subtheme indicates that the development process is not free from obstacles, such as limited digital devices, minimal experience in using applications, and resistance to changes in work culture.

Meanwhile, the Strategy subtheme suggests that TK Aisyiyah X has actively sought to formulate systematic measures to develop human resources in a more structured manner. These strategies include scheduled training, competency evaluation, and the use of school management platforms to enhance talent quality in an inclusive way. The study conducted by [Sanjayyana, Sutarsa, Romdoni, and Fitriani \(2024\)](#), states that sound human resource development strategies must be sustainable, data-based, and able to respond flexibly to individual needs. This is aligned with the direction of digitalization, which provides space for schools to monitor participants' development in real time and to adjust programs more accurately.

The final theme was Performance, with the subtheme of Evaluation. The Evaluation subtheme indicates that TK Aisyiyah X Jaten Karanganyar has developed a strong awareness of the importance of performance assessment as a basis for improving the quality of human resources. Evaluation does not only target teachers' professional performance in teaching, but also assesses financial management, effectiveness, and the implementation of digitalization. According to [Zhou, Han, Zhang, and Xu \(2009\)](#), digital-based evaluation has advantages in terms of accuracy, objectivity, and the ability to generate metrics that can be analyzed more comprehensively. This helps the school assess whether its strategies for strengthening inclusive talent and financial literacy have been implemented as intended and whether they have generated a tangible impact on improving the quality of educational services.

5. Conclusions

5.1 Conclusion

This study examines how digitalization enhances inclusive talent management and financial literacy to improve human resource performance at TK Aisyiyah X Jaten Karanganyar. Findings show that improving performance requires a combination of governance, capacity building, financial accountability, and data-based evaluation. Digitalization links talent management, financial literacy, and performance, supporting teacher development, transparent resource allocation, and effective communication. The study introduces the concept of digitalization-enabled inclusive talent management, emphasizing its role in resource-constrained early childhood education. It also contributes to digital transformation in education by demonstrating how digital tools bridge human resource development and financial governance. From a managerial perspective, principals should treat talent management as a strategic function. A digital database can track teacher profiles, training, and performance. Administrative staff should strengthen financial governance with digital tools, and school committees should support digitalization with clear policies. This study shows that inclusive talent management, financial literacy, and digitalization work together to enhance institutional performance.

5.2. Research Limitations

This study has several limitations. First, the study was conducted as a single-case study in one early childhood education institution. Therefore, the findings are context-specific and should not be generalized statistically to all early childhood education institutions. The results are more appropriately understood as an in-depth contextual explanation of how inclusive talent management, financial management literacy, and digitalization interact within a small community-based school setting. Second, this study relied on qualitative data obtained through focus group discussions, interviews, and institutional documents. As a result, the study did not measure causal relationships among talent management, financial literacy, digitalization, and human resource performance.

The findings provide interpretive and managerial insights, but they do not offer statistical evidence regarding the strength or direction of influence among these variables. Third, the study focused primarily on internal school stakeholders, including school leaders, teachers, treasurers, and administrative actors. Parents, external supervisors, policymakers, and broader community stakeholders were not extensively involved. Consequently, the findings may not fully capture external expectations, supervisory perspectives, or policy-level dynamics that may influence the implementation of digitalization-based talent and financial management in early childhood education institutions.

5.3. Suggestions and Directions for Future Research

Based on the findings, it is suggested that school management develop simple digital databases for teacher development, task distribution, training, financial documentation, and performance evaluation to enhance transparency and accountability. Capacity-building programs for teachers and staff should focus on pedagogical skills, digital literacy, financial awareness, and administrative tasks. Additionally, school committees and foundations should support digitalization by establishing clear policies and procedures for financial reporting, document archiving, teacher training, and performance evaluation. Future research should explore these practices across multiple institutions, using mixed-methods and longitudinal studies to assess the long-term impacts on teacher performance and institutional effectiveness.

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Author Contributions

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