

Cohesive Governance: A Process-Based Approach for Holding Design and Subsidiary Success Based on Efficient Value Creation

Mahdi Bastan

Graduate School of Management and Economics
Sharif University of Technology, Tehran, Iran and
Deputy of Strategic Development
Golrang Industrial Group, Tehran, Iran
Mahdi.bastan@sharif.edu, Bastan.mahdi@Golrang.com

Yousef Asgari, Zarifeh Shahrashoob and Bitah Elahifar

Deputy of Strategic Development
Golrang Industrial Group, Tehran, Iran
Asgari.yousef@Golrang.com, Elahifar.bitah@Golrang.com, Shahrashoob.zarifeh@Golrang.com

Mahla Sadat Rezaei

Faculty of Commerce and Trade, College of Management
University of Tehran, Tehran, Iran
mahlasadatrezai@ut.ac.ir

Abstract

The growing number of large holdings highlights challenges in transparency, process delegation, and strategic alignment within corporate governance. The implementation of cohesive governance and lean organizational design is a critical strategic issue for large holdings. The cohesive governance creates value for corporations and subsidiaries by fostering synergy, promoting risk mitigation, enhancing resilience, advancing strategic alignment, while simultaneously limiting the misapplication of imposing rigid strategies that provide inessential intervention levels, stifle creativity and agility, and ignore market needs. Achieving cohesive governance requires suitable processes and supportive organizational design. This study presents a new methodology for organizational design to reach cohesive governance in a large holding. For this purpose, firstly, the key themes of cohesive governance, as efficient value, were identified. Secondly, a new and specific process classification framework (PCF) for holdings was developed. Next, considering three holding levels, processes were assigned through a survey of experts. Processes were then clustered, and the organizational design was extracted. Proposed PCF clarifies process distribution across holding, corporate, and subsidiary levels, fostering value creation and strategic alignment. Also, Results show the proposed methodology can design an organization aligned with cohesive governance by specifying processes for each organizational level. This study advances the governance concept by providing a practical, strategy-driven PCF and a replicable method for structuring large holdings, addressing gaps in parenting, clarity, and process organization.

Keywords

Cohesive Governance, Efficient Value, Process Classification Framework, Organization Design, Parenting Strategy, Subsidiary Success

1. Introduction

In today's world, holding companies play a vital role in the global economy. The emergence of large holding companies, particularly conglomerates, began in the mid-20th century. These entities typically aim to expand their activities across various economic sectors and diversify operations to mitigate economic risks and market fluctuations. Holding companies can be broadly categorized into three types:

1. *Financial Holdings*: These primarily include investment and insurance companies focusing on financial and banking services.
2. *Corporate Holdings*: These typically involve companies operating within a specific industry, aiming to increase scale and competitive strength.
3. *Conglomerates*: These encompass companies active in diverse industries, with the primary goal of managing risk and enhancing profitability through business diversification (Krühler et al., 2012; Williams et al., 1988). Due to their diversified activities, conglomerates are particularly significant for their ability to reduce risk, seize growth opportunities, and maintain stability during crises. They can effectively manage resources and capitalize on multiple opportunities for profitability and growth (Roghé et al., 2013; Feldman, 2020). In contrast, corporate and financial holdings, often limited to a single industry, may not enjoy these advantages.

Key characteristics of conglomerates include diversified investments, centralized management, horizontal and vertical expansion, and economies of scale (Goold et al., 1998; Puranam & Vanneste, 2016). By operating in various economic sectors, conglomerates can mitigate fluctuations and crises specific to a single industry, leveraging profitability from other sectors during downturns. They typically operate under centralized management, overseeing subsidiaries and various units, enabling the implementation of integrated resources and strategies. Conglomerates can grow through horizontal expansion (acquiring companies in different industries) or vertical expansion (acquiring companies within the supply chain). Additionally, due to their large-scale operations, conglomerates often benefit from economies of scale, reducing costs through bulk purchasing, mass production, and resource optimization.

In terms of size and complexity, conglomerates are typically larger and more intricate than other types of holdings. This complexity arises from diverse industries, operational scale, resource and risk management, and cultural and organizational challenges.

Previous studies highlight the following major challenges for conglomerates:

- **Lack of operational coordination:** A primary issue is the managerial complexity and lack of coordination among different units (Feldman, 2021).
- **Cultural Challenges:** Differences in organizational culture across various units can lead to communication and managerial issues (Clarke, 2022).
- **Risk management:** Due to industry diversity, conglomerates may struggle to identify and manage various risks (Uddin et al., 2024).
- **Financial and investment issues:** Improper resource management and scattered investments can lead to liquidity problems and low returns (Smet et al., 2022).
- **Complex management:** The diversity of subsidiaries makes management complex, as each requires tailored strategies, potentially leading to coordination issues (Goold et al., 1994).
- **Lack of specialization:** Operating in multiple industries may prevent conglomerates from developing deep expertise in any single sector, limiting their ability to capitalize on specific industry opportunities (Collis & Montgomery, 2008).
- **Organizational and financial risks:** Excessive diversification can obscure issues in certain units, which may create pressure on the parent company during crises (Rumelt, 1982).

Conglomerates, due to their diverse activities, larger scale, and complex managerial challenges, are more intricate than other holding types (Amit & Zott, 2001). They require precise and coordinated management structures to fully utilize their potential.

Previous researches indicate the following key managerial strategies for optimizing conglomerate management:

- ✓ **Appropriate managerial architecture:** Designing a suitable management structure to improve coordination and resource management.
- ✓ **Integrated information systems:** Leveraging modern technology to create unified systems for facilitating communication across units.
- ✓ **Comprehensive strategic planning:** Developing long-term strategies that include thorough market and risk analysis and optimal resource utilization.
- ✓ **Organizational culture management:** Fostering a shared, effective organizational culture across the conglomerate's diverse units (Campbell & Goold, 1995).

Effective strategic management and appropriate organizational architecture are critical for addressing the managerial and structural challenges of conglomerates. This architecture must manage complexity and inter-unit relationships, particularly across organizational levels. Specialized markets or differentiated strategies can help conglomerates make optimal decisions tailored to each unit's characteristics and needs.

Thus, in large conglomerates, designing a value-creating managerial system and lean organizational architecture that effectively leverages all resources and capabilities is essential. This architecture should ensure that decisions at various levels are coordinated, data-driven, synergistic, and optimized without waste.

A Boston Consulting Group (BCG) report on the role of holdings in creating or destroying value for strategic business units identifies five value-creating activities (financing advantages, strategy development, corporate resources and functions, operational engagement, and commercial synergies). However, it also lists 19 negative, value-destroying characteristics of holdings (Krühler et al., 2012).

A critical issue in designing an effective managerial system and governance model for large conglomerates is the ability to create efficient value. This refers to a multi-layered organizational architecture where the allocation of responsibilities, tasks, and decision-making is structured to maximize efficiency and optimality, avoiding negative impacts on other units. Tasks should be assigned based on the competence of the best-suited unit, not hierarchical considerations.

The BCG report outlines six parenting strategy patterns for large holdings, ranging from maximum intervention to minimal oversight. A key insight is that holdings must first avoid destroying value for their business units before seeking to create value, a concept referred to as efficient value.

Puranam and Vanneste emphasize that holding advantage, synergies, and governance costs are critical factors in selecting a value-creating parenting strategy (Krühler et al., 2012).

By establishing the foundation for creating efficient value in conglomerate governance, the concept of cohesive governance emerges. Cohesive governance is a managerial model based on collaboration, cohesion, and coordination among various entities within a large conglomerate. Its primary goal is to ensure that all hierarchical levels and units operate synergistically to achieve shared objectives and maximize value. Instead of fragmented or uncoordinated decision-making, cohesive governance emphasizes alignment and integration in policies, processes, and decisions, fostering strategic alignment.

Cohesive governance focuses on alignment, cohesion, and synergy among the conglomerate's components, ensuring all parts work toward overarching goals.

A key question is the mechanisms and roadmap for achieving cohesive governance and creating efficient value in large conglomerates, which is the central focus of this study. In cohesive governance, organizational processes must align with overarching goals and strategies, minimizing interference, conflict, or duplication across units. Decisions should be based on integrated, accurate data to create value optimally and synergistically.

This study proposes a novel methodology based on the value-creating distribution of organizational processes across specialized holding levels. By optimally allocating and structuring processes through the translation of a value-creating parenting strategy into organizational architecture, the framework enables efficient value creation and the establishment of cohesive governance in large conglomerates.

Cohesive governance, driven by efficient process implementation and the proper execution of a value-creating parenting strategy, can serve as a strategic enabler for other process-driven systems, such as digital transformation, agility, and the development of an intelligent organization.

2. Literature and Background

2.1 Process Management

Process management—often referred to as Business Process Management (BPM)—views the organization as a network of interlinked processes that collectively deliver value to customers and support strategic objectives. It emphasizes lifecycle steps like design, modeling, execution, monitoring, and optimization (Kristina & Gulnar, 2019).

González-González et al. (2012) show that a systemic approach—identifying process owners, tracking performance indicators, and continually refining workflows—directly improves organizational agility and effectiveness.

At the holding or corporate level, process management focuses on standardizing, integrating, and controlling processes across a portfolio of subsidiaries to realize economies of scale, maintain consistency, and leverage shared services. These centralized holding functions include enterprise resource planning (ERP), shared HR and finance platforms, and unified reporting systems that enable tighter coordination and cost reduction (Fähndrich, 2023).

Rom and Rohde (2023) illustrate this trend by embedding transactional processes like procurement and inventory reporting into broader ERP systems. Firms achieve streamlined operations and centralized governance, even though successful implementation requires careful integration with HR, finance, and local workflows.

In global firms, holding process teams balance central oversight with respect for subsidiary-specific knowledge, promoting trust and enabling tailored process governance that both sustains control and fosters local innovation.

2.2 Process Classification Framework

In the dynamic and increasingly complex landscape of organizational operations, structured methodologies for understanding, analyzing, and improving business processes have become essential. The Process Classification Framework (PCF) is one such methodology, offering a standardized taxonomy for classifying and organizing business processes across various industries. Developed to provide a common language for process management, the PCF enables organizations to benchmark performance, align operations with strategic goals, and support process improvement initiatives such as Lean, Six Sigma, and Business Process Reengineering (BPR) (Kristina & Gulnar, 2019).

Unlike traditional organizational charts, which focus on departments or roles, the PCF is process-centric. It breaks down business activities into hierarchical levels—typically from broad categories to specific processes—facilitating clarity, consistency, and comparability. By mapping processes independently of industry or organizational structure, the PCF aids in identifying best practices and uncovering inefficiencies across different sectors.

Numerous organizations and standards bodies have developed PCFs tailored to specific needs and industries. These frameworks have become foundational tools in both academic research and practical enterprise performance management. Some notable Process Classification Frameworks are as follows:

- ***APQC Process Classification Framework***

Developed by the American Productivity & Quality Center (APQC), this is one of the most widely adopted PCFs globally. It provides cross-industry as well as industry-specific versions, facilitating benchmarking and best practices.

- ***SCOR (Supply Chain Operations Reference Model)***

Developed by the Supply Chain Council (now part of APICS), SCOR is a PCF specifically focused on supply chain processes. It provides a structured framework for evaluating and improving supply chain performance.

- ***Gartner Process Classification Framework (Gartner PCF)***

Gartner PCF is a process classification tool that helps companies structure and organize their processes by categorizing them into standardized groups. It provides a common language for process management, which makes it easier for organizations to evaluate, compare, and improve their processes. This framework is divided into high-level categories, with each category further divided into detailed process areas.

Gartner PCF is used across various industries and can be adapted for specific organizational needs, making it a versatile tool for both small and large enterprises.

- **eTOM (Enhanced Telecom Operations Map)**

Created by the TM Forum, eTOM is a PCF for the telecommunications industry. It supports process standardization and service lifecycle management.

- **ITIL (Information Technology Infrastructure Library)**

While not a PCF in the strictest sense, ITIL provides a comprehensive process framework for IT service management, widely used in IT departments and service organizations.

- **COBIT (Control Objectives for Information and Related Technologies)**

Managed by ISACA, COBIT includes a PCF component for IT governance and management, helping organizations align IT goals with business objectives.

In addition to the above frameworks, there are various other models and approaches for managing and improving organizational processes. Table 1 provides an analytical comparison of the focus areas, strengths, and weaknesses of each of these tools.

Table 1. Comparison of Process Management Tools

Framework/ Model	Type	Focus Area	Key Strengths	Main Weaknesses	Best Suited For
APQC	Process Classification	Categorizing Business Processes	Benchmarking, standardization of business processes	Limited customization options, not adaptable to niche industries	Companies seeking to standardize processes for benchmarking
Gartner	Process Classification	Benchmarking, best practices in business processes	Comprehensive process mapping and classification	May be difficult to apply to non-standardized or rapidly changing environments	Companies looking for industry best practice standards
eTOM	Process Classification	Telecom Operations & Service Management	Standardized telecom processes, modular design	Limited to the telecom industry, lacks flexibility for other sectors	Telecom industry for process optimization
SCOR Model	Process Model	Supply Chain Optimization	Streamlines supply chain operations, performance metrics	Primarily focused on supply chain and logistics, may not apply to other sectors	Supply chain-intensive organizations
McKinsey 7S	Organizational Design	Organizational Alignment & Effectiveness	Aligns strategy, structure, systems, values, skills, and style	May lack practical guidance for implementation in complex environments	Strategic alignment, organizational transformation
BPM	Process Management	End-to-end process optimization	Automation, continuous improvement, operational efficiency	Can be complex to implement across diverse business environments	Organizations focusing on improving business processes

Framework/ Model	Type	Focus Area	Key Strengths	Main Weaknesses	Best Suited For
Porter's Value Chain	Process Model	Value creation through business activities	Highlights primary and support activities for value creation	Overemphasis on sequential processes may not fit all business models	Organizations focused on understanding value creation in their operations
ISO 9001	Process Model	Quality Management System	Process standardization, continuous quality improvement	May be too rigid and bureaucratic for fast-changing industries	Organizations focusing on consistent product quality and customer satisfaction
Lean Management	Process Improvement	Eliminating waste, improving process efficiency	Focus on the value stream and reducing non-value-added activities	Can overlook complex processes or oversimplify issues	Manufacturing and process-heavy industries
Six Sigma	Process Improvement	Defect reduction and variability control	Data-driven, focuses on improving process quality	Requires significant data analysis and statistical expertise	Organizations aiming for high-quality, low-defect operations
Infosys Model	IT/Business Model	Digital Transformation and Consulting	Provides IT-enabled business process transformation	Heavy reliance on IT may be challenging for businesses without a strong digital infrastructure	Companies focusing on digital transformation and IT solutions
Oracle Model	IT/Business Model	Cloud-based ERP systems and integrated business processes	Integration of business functions with a scalable IT infrastructure	High cost of implementation, may be too complex for smaller organizations	Large-scale enterprises looking for integrated cloud-based solutions
IBM Model	IT/Business Model	Cognitive enterprise, AI, and cloud solutions	Focuses on AI, cloud computing, and data analytics	Requires a significant investment in AI and cloud technologies	Enterprises aiming for AI-driven innovation and business transformation
SAP	ERP System	Business Process Integration & Management	Real-time processing, integration of core business functions	High implementation cost and complexity for large organizations	Large organizations with complex operations
Priority	ERP System	Business Process Automation	Streamlines operations, integrates multiple functions	May lack the depth of functionality required by large enterprises	SMEs looking for an affordable, scalable ERP system
SAGE	ERP System	Comprehensive business management tools	User-friendly interface, customization, and integration	May not be as robust for larger, complex organizations	SMEs and mid-sized businesses requiring a cost-effective ERP
Accenture Model	Consulting/Management Model	Strategy, consulting, and digital transformation	Expertise in technology integration, strategic consulting	Expensive, may be out of reach for smaller firms or startups	Enterprises seeking end-to-end transformation solutions

Framework/ Model	Type	Focus Area	Key Strengths	Main Weaknesses	Best Suited For
PwC Model	Consulting/Management Model	Business process reengineering, organizational design	Specializes in industry-specific consulting and solutions	May be too focused on large-scale projects, not applicable for smaller organizations	Organizations undergoing restructuring or requiring strategic consulting

Table 1 provides an analytical overview of different business models and frameworks based on their focus, key strengths, and weaknesses. The best fit for an organization depends on its industry, size, and specific needs, whether focusing on process optimization, strategic alignment, or digital transformation.

Analytical comparison of process classification frameworks shows that most existing PCFs are suitable for business-level and specialized companies. Given the significant differences in activities of mixed holdings compared to companies and businesses, there is a need for a specific process framework for holdings. In this study, through a systematic literature review of processes and key functions of large holdings, a dedicated process framework for holdings is proposed, which is one of the innovative aspects of this research.

2.3 Parenting Strategy

Holding companies use a parenting strategy to assess how their corporates can create value for subsidiary units, much like a parent assessing how best to nurture each child. The foundational concepts by Goold, Campbell, and Alexander argue that holdings should focus on a few clear, unique opportunities where they can genuinely add value, rather than apply generic best practices across the board. Successful “parents” tailor their involvement—whether through strategic planning, financial oversight, or targeted support—to the specific developmental needs and life-cycle stages of each subsidiary.

This alignment—between the parent's unique capabilities and a subsidiary's specific requirements—helps ensure that holding resources are used where they can generate genuine returns, avoiding value destruction through inappropriate interventions.

According to the BCG report, large holdings can primarily choose from six parenting strategies as follows:

- **Hands-Off Ownership:** This strategy entails a minimal level of parental involvement, prioritizing the diversification and management of a broad business portfolio. It focuses exclusively on establishing high-level financial targets to guide subsidiary performance.
- **Financial Sponsorship:** This approach involves providing substantial financial support and tax advantages to subsidiaries, enhancing their fiscal flexibility. It offers protective measures against external market pressures while maintaining limited strategic oversight.
- **Synergy Creation:** It emphasizes fostering collaboration by encouraging the sharing of best practices and resources across business units. Additionally, it aims to significantly enhance operational efficiency and innovation throughout the holding and corporate structure.
- **Strategic Guidance:** This approach provides comprehensive strategic direction and rigorous oversight to guide subsidiary growth and performance. It balances the pursuit of expansion with effective portfolio management to maximize long-term value.
- **Functional Leadership:** The method entails centralizing support services such as IT, accounting, and procurement to optimize resource use across the organization. It drives substantial value creation through the application of specialized holding expertise.
- **Hands-On Management:** The last strategy features an intensive level of involvement, with the parent company actively shaping the operational and strategic decisions of its subsidiaries. It exerts direct influence to ensure alignment with holding objectives.

These patterns are classified based on the level of involvement and the type of value that the parent company can create for its subsidiaries, and choosing the most suitable pattern depends on the nature of the holding company, its strategic objectives, and the characteristics of the subsidiary businesses. In this study, with the aim of effectively creating value by the parent holding company for the corporations and subsidiaries, the combined approach of Synergy Creation and Functional Leadership is introduced as the pattern for creating efficient value.

2.4 Holding Hierarchy

The hierarchical structure in holding companies refers to the organization of the parent company (holding) and its subsidiaries, typically designed for more effective control and management of diverse activities.

In conglomerate holdings, this structure can be more complex because the parent company owns or controls a group of companies with varied activities across different industries. Types of hierarchical structures in holdings include centralized models (where decision-making is primarily at the holding level), semi-centralized models (with partial delegation of authority to specialized companies), and decentralized models (which grant greater autonomy to operational units).

In this study, we have considered a three-tier hierarchical structure consisting of the parent holding (conglomerate), specialized holding companies (corporations), and finally the subsidiary companies or operational units (subsidiaries).

2.5 Best-Worst Method (BWM)

In this study, to evaluate the importance and ranking of processes assigned to holding units, the Best-Worst Method has been used. This method, one of the approaches to solving multi-criteria decision-making problems, was introduced by Rezaei [19]. Compared to other multi-criteria methods, it is more efficient because it requires less data for pairwise comparisons and offers a suitable structure, high transparency, ease of application, and reliable results. Additionally, the weights obtained from this method are more reliable than those from other methods (Bastan & Isaai, 2025; Bastan et al., 2024).

In common multi-criteria methods such as the Analytic Hierarchy Process (AHP), Analytic Network Process (ANP), and others, to evaluate n options, $\binom{n}{2} = \frac{n(n-1)}{2}$ is required for pairwise comparisons. However, in the Best-Worst

Method (BWM), in the first step, after the decision-makers (DMs) identify the best (most important) and worst (least important) options, the other options are compared relative to these two. Consequently, the number of pairwise comparisons is equal to $2n-3$ which demonstrates the operational superiority of this method. Numerous applications of this method in evaluation and ranking have been reported (Bastan & Isaai, 2025).

Steps for implementing the BWM:

1. *Identify options (processes).*
2. *Determine the most and least important processes through expert consensus.*
3. *Assign scores to each process relative to the most and least important processes.*
4. *Solve the mathematical model (Model 1).*

Model 1:

Min φ

s. t.

$$|w_m - R_{mi}w_i| \leq \varphi \quad i = 1, \dots, p$$

$$|w_i - R_{il}w_l| \leq \varphi \quad i = 1, \dots, p$$

$$\sum_{i=1}^p w_i = 1$$

$$w_i \geq 0 \quad i = 1, \dots, p$$

- ✓ In this model, w_m and w_l represent the weights of the most and least important processes, respectively.
- ✓ w_i denotes the weight of the i -th process (note that p represents the number of processes). Additionally, R_{mi} indicates the priority level of the most important process relative to the i -th process, and R_{il} represents the priority level of the i -th process relative to the least important process.
- ✓ φ indicates the degree of inconsistency and is used to show the consistency of comparisons; the closer φ is to 0, the more consistent the comparisons. The optimal weights and inconsistency level are obtained by solving the model using GAMS software.

2.6 Efficient Value

From a holding perspective, efficient value creation occurs when a process is executed by the optimal alternative (executor, performer, or business unit) to maximize value.

3. Research Methodology

To achieve research objectives, a mixed, multi-stage methodology was employed, summarized in Figure 1. In the first phase, a systematic literature review on holding company structures and functions, existing PCFs for process classification, expert interviews, and Grounded Theory were used to develop a new PCF tailored for holding companies, named **HOLPRO**. HOLPRO is a process framework specific to holding companies, defining processes for their value-creating role toward corporations and subsidiaries.

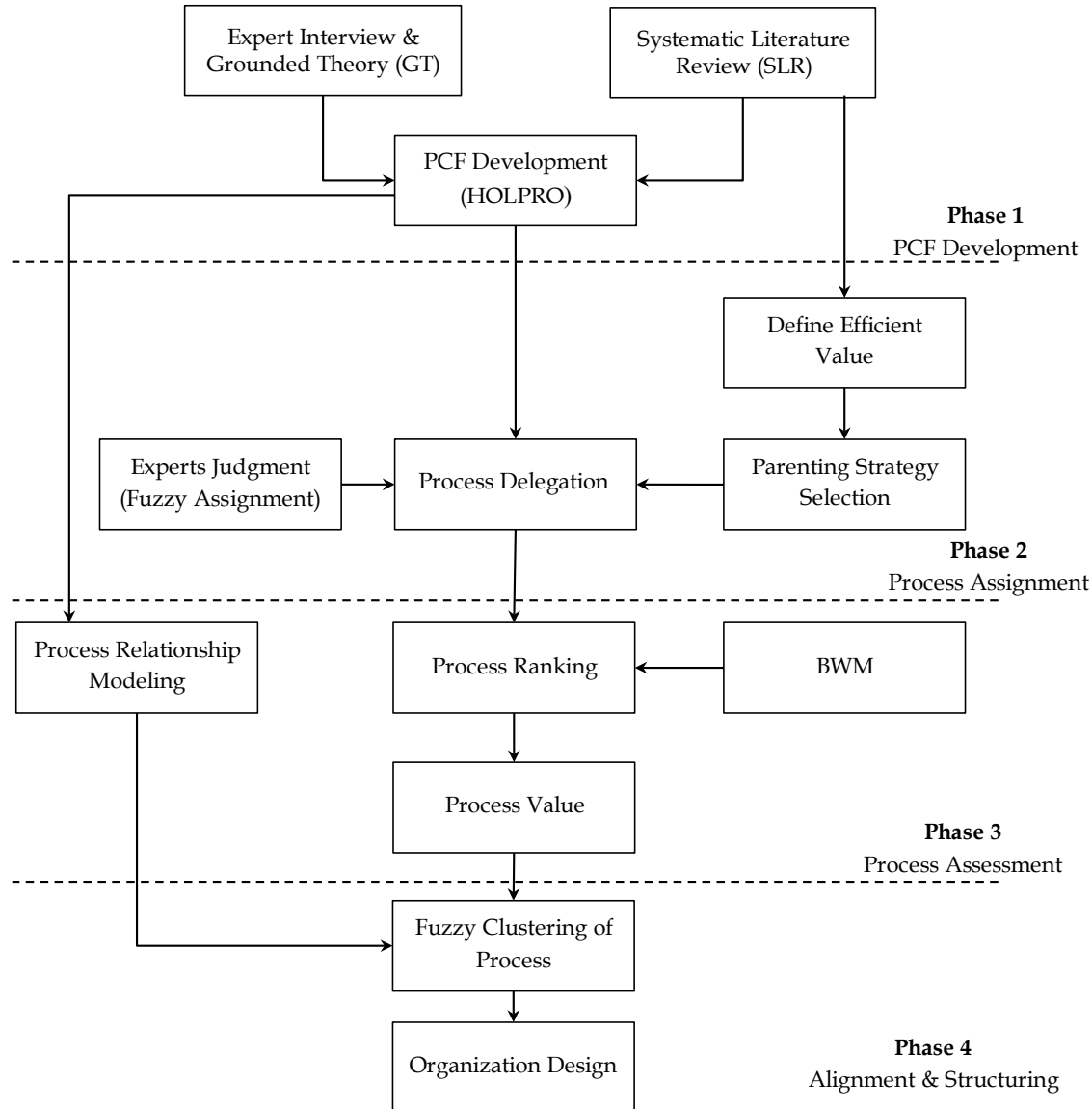


Figure 1. Flowchart of the research methodology

In the second phase, the efficient value of the holding company is defined first, and based on this value, an appropriate parenting strategy model is selected for the holding company. Then, by communicating the desired

parenting strategy to selected experts (a committee of holding company managers), processes are distributed across the three hierarchical levels—holding, corporation, and subsidiary—using triangular fuzzy numbers.

The third phase evaluates processes and calculates their importance as process value. Initially, process relationships are modeled. Using the Best-Worst Method (BWM) and expert opinions, processes are weighted, prioritized, and ranked. At the end of this phase, with each expert's weight, the process allocation score to the holding company, and the process importance weight, the process value is calculated based on the provided relationships.

L	$l = 1, 2, 3$	Hierarchy Level of Holding Index
I	$i = 1, 2, \dots, p$	Process Index
J	$j = 1, 2, \dots, m$	Expert Index
K		Number of Process category
K'		Number of Clusters
WP_i	$i = 1, 2, \dots, p$	Weight of Process i
We_j	$j = 1, 2, \dots, m$	Weight of Process j
$S_j^l = (\alpha_i^1, \beta_i^2, \gamma_i^3)$	$i = 1, 2, \dots, p$	Fuzzy score of the assignment of Process i to the level l
$V_{ij}^l = S_j^l \times WP_i \times We_j$	$i = 1, 2, \dots, p$	Value of Process i in Level l based on Expert j
$V_i^l = \sum_{j=1}^m S_j^l \times WP_i \times We_j$	$i = 1, 2, \dots, p$	Value of Process i in Level l

In the final stage, considering the process values at each level V_i^l , processes are clustered based on value similarity.

$$\tilde{P}^l = \begin{bmatrix} P_1^l \\ P_2^l \\ \vdots \\ P_i^l \\ \vdots \\ P_p^l \end{bmatrix} \quad \tilde{V}P^l = \begin{bmatrix} V_1^l \\ V_2^l \\ \vdots \\ V_i^l \\ \vdots \\ V_p^l \end{bmatrix} \quad \tilde{C} = (C_1, C_2, \dots, C_k)$$

In the above relations, \tilde{P}^l represents processes assigned to organizational level l with process value i equivalent to V_i^l , collectively form the value vector $\tilde{V}P^l$. Given that processes in the developed PCF belong to several process categories, the vector \tilde{C} represents these categories.

To cluster processes based on value while considering categories, constrained fuzzy clustering is used. The process relations modeled in the previous stage serve as functional constraints, meaning process allocation to clusters (as organizational units) must respect constraints like correlated or prerequisite processes.

$$\bar{V}_{k'}^l = \sum_{i \in k'} V_i^l$$

In this stage, after clustering and allocating processes to various clusters, the score of the cluster k' at the organizational level l , denoted as $\bar{V}_{k'}^l$, is calculated by summing the scores of the allocated processes. This value represents the score derived from processes assigned to an organizational unit, considering the value of the allocated

processes. Naturally, using this score, unit sizes can be designed in the form of departments and management levels, leading to an organizational architecture aligned with the processes.

4. Results

Through the research method, HOLPRO, the main output of the study as a specialized PCF for processes related to large holding companies, is presented in Figure 2.

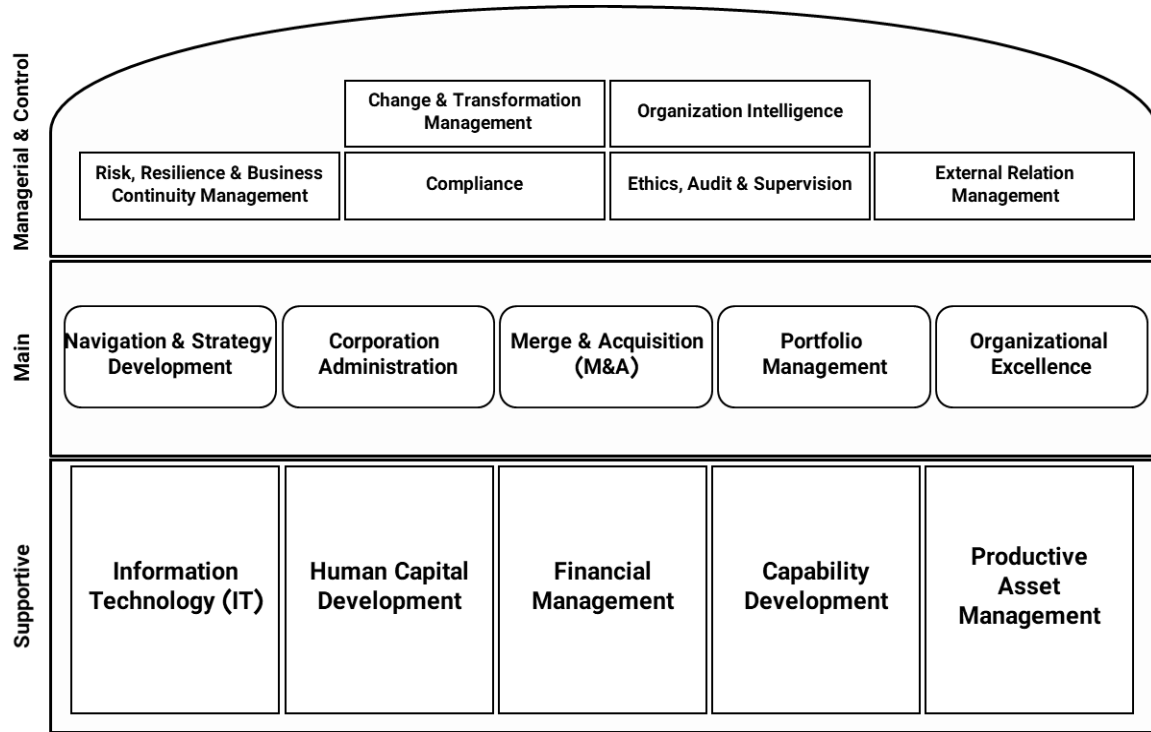


Figure 2. HOLPRO: Specific Process Classification Framework for Holdings

As shown in Figure 2, HOLPRO is a PCF with 16 Process Categories, divided into three process classes: Managerial and Control, Main, and Supportive.

4.1 Managerial and Control Processes

This class includes 6 process groups comprising: Change & Transformation Management, Organization Intelligence, Risk, Resilience & Business Continuity Management, Compliance, Ethics, Audit & Supervision, and External Relations Management.

4.2 Main Processes

This class includes 5 process groups: Navigation & Strategy Development, Corporation Administration, Mergers & Acquisitions (M&A), Portfolio Management, and Organizational Excellence.

4.3 Supportive Processes

This class includes 5 process groups: Information Technology (IT) Management, Human Capital Development, Financial Management, Capability Development, and Productive Asset Management.

5. Case Study

For the case study, purposive and convenience sampling was performed, and a committee of 10 holding managers and experts was selected as follows in Table 2.

Table 2. Demography of experts for case study

Row	Job Title	Education	Specialization/Experience
1	Senior Manager of Financial Holding	Ph.D.	Business Strategy, Organizational Design, BPM
2	Senior Manager of Conglomerate	DBA.	Parenting Strategy, Corporate Governance
3	Senior Manager of Conglomerate	MSc.	IT Process Frameworks, Corporate Strategy
4	Senior Strategy Manager in Corporate Holding (Pharmaceutical)	Ph.D.	Corporate Strategy, Process Management
5	Senior Innovation and Knowledge Manager in Corporate Holding (FMCG)	MSc.	Knowledge Management, Innovation Management, Process Management
6	Associate Professor and Consultant for Process Implementation	Ph.D.	BPM, Digital Transformation, Machine Learning
7	Associate Professor and Consultant for Process Implementation	Ph.D.	BPMS, Process Mining, Simulation
8	Senior Consultant of Corporate Holding (IT)	MSc.	Information Technology, Machine Learning, and Artificial Intelligence
9	Manager of Corporate Holding (IT)	Ph.D.	Optimization, Multi-Criteria Decision Making
10	Senior Expert of Conglomerate	MSc.	Strategic Management, Finance and Investment

According to the developed methodology, experts were asked to assign a fuzzy score to each process in the HOLPRO PCF. This score determines the relevance of a process at the holding, corporate, or subsidiary level based on its degree of membership. A key advantage of this approach is considering all holding levels during process allocation, which, by incorporating a value-creating parenting strategy, fosters cohesive governance.

Subsequently, process ranking was conducted using the Best-Worst Method (BWM), determining the weights for each process. In the final stage, the process value was calculated by multiplying the experts' weights, the process weights, and the process's membership degree at the organizational level.

Figure 3 illustrates the implementation process of constrained fuzzy clustering based on process values in Python.

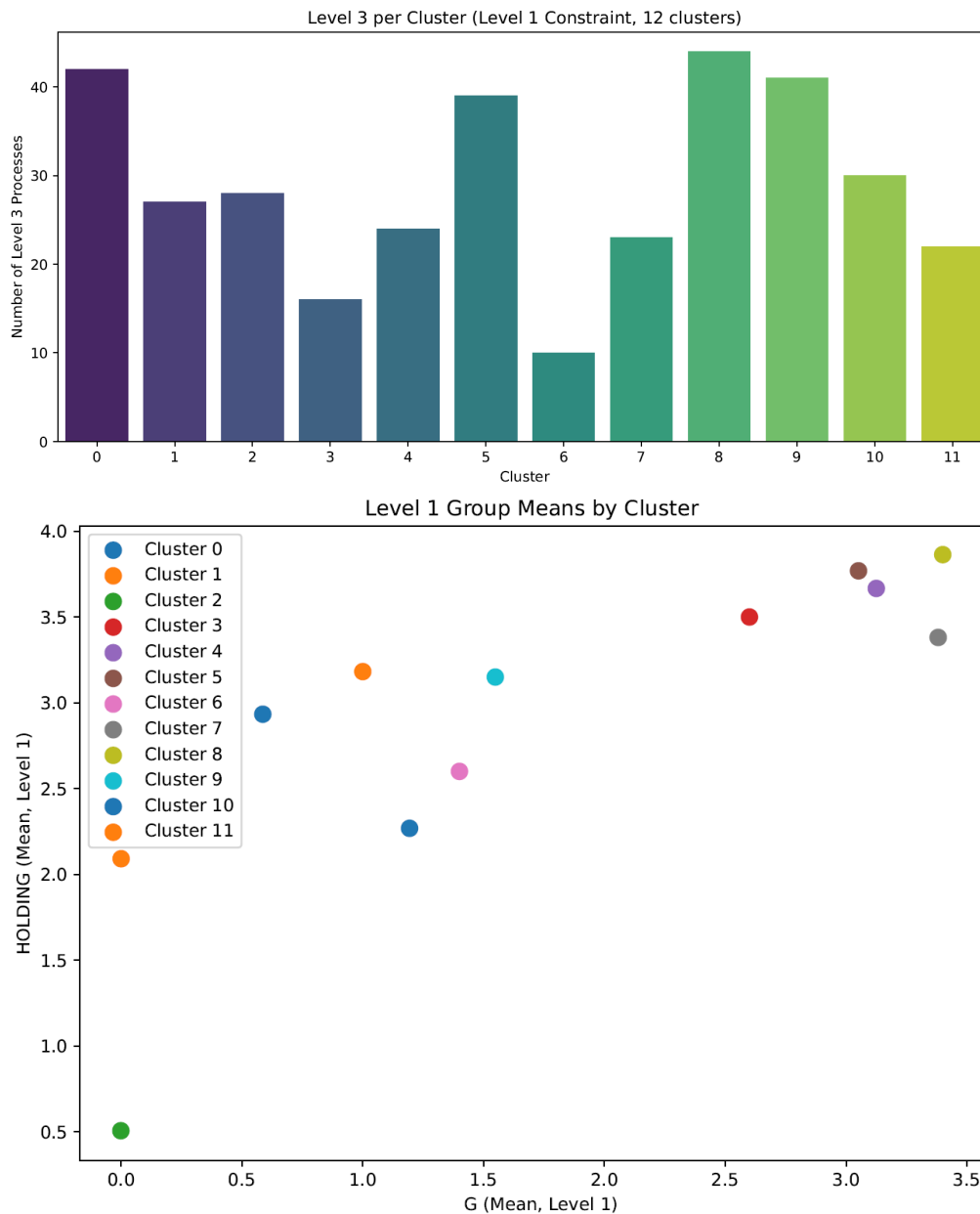


Figure 3. Results of constrained fuzzy clustering of processes

Based on the clustering approach, processes were grouped into 12 clusters with varying scores. By mapping cluster scores to organizational units, the holding's organizational architecture was derived, as shown in Figure 4. This architecture can serve as a standard model for large holdings and conglomerates. Its distinguishing feature lies in the process-driven extraction method and its ability to support value-creating holding processes.

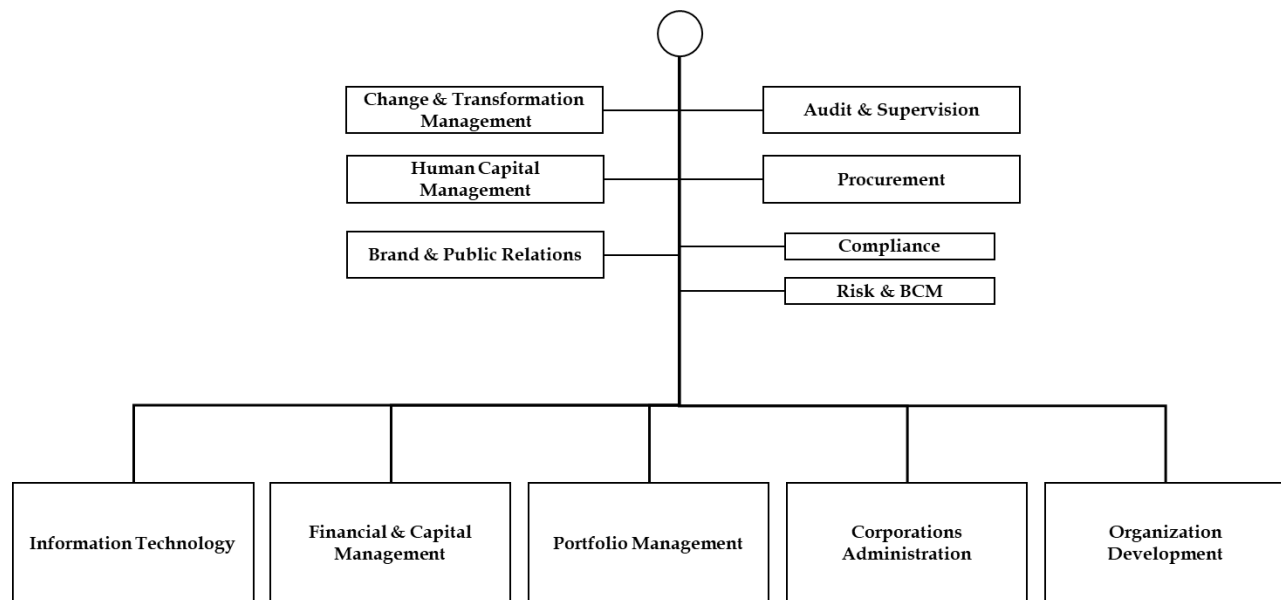


Figure 4. Extracted Organization Design from a Case Study for Holding

6. Conclusion

This study introduces a novel methodology for achieving cohesive governance in large conglomerates through a process-based organizational design, emphasizing efficient value creation. To address the critical gap in existing PCFs, the development of HOLPRO, a specific Process Classification Framework (PCF) for holding companies helped the allocation of processes across holding, corporate, and subsidiary levels. By integrating a value-driven parenting strategy with the Best-Worst Method (BWM) and constrained fuzzy clustering, the proposed framework is to ensure strategic alignment, synergy, and optimized resource allocation while mitigating risks associated with managerial complexity and uncoordinated operations.

The HOLPRO framework, with its 16 process categories across main classes: managerial, main, and supportive processes, offers a practical tool for holdings to enhance governance clarity and value efficiency. The case study demonstrates its applicability, showing how process assessment can lead to a lean holding design architecture that fosters resilience, agility, and value creation. These findings advance the theoretical understanding of cohesive governance and provide a actionable lead for management over the growing numbers of diversified holdings.

Future research could explore the scalability of HOLPRO across different industries and its integration with emerging technologies, such as artificial intelligence. To further enhance process automation and decision-making, further attempts could prove beneficial in the realm of information technology. Studies could validate the framework's impact on long-term subsidiary performance and conglomerate resilience, solidifying its role as a cornerstone for cohesive governance in dynamic economic environments.

References

- Abdel-Basset, M., Mohamed, M., Mostafa, N. N., El-Henawy, I. M., & Abouhawwash, M., New multi-criteria decision-making technique based on neutrosophic axiomatic design. *Scientific Reports*, 12(1), 10657. 2022.
- Amit, R. & Zott, C., Value creation in e-business. *Strategic Management Journal*, 22(6-7), 493–520. 2001.
- Bastan, M. & Isaai, M. T., Efficient Strategic Change Management in Implementing Artificial Intelligence Banking. *Strategic Management Studies*, 19, 2025.
- Bastan, M., Ghazizadeh, A., & Hamid, M., An Integrated Approach to Formulate Win-Win Strategies in Retail Banking, A Simulation-Machine Learning-Optimization Approach. In *7th European Conference on Industrial Engineering and Operations Management*, 2024.

- Campbell, A. & Goold, M., Corporate strategy: The quest for parenting advantage. *Harvard Business Review*, 73(2), 120–132. 1995.
- Clarke, T., *Comparative corporate governance: A research overview*. Routledge, 2022.
- Collis, D.J. & Montgomery, C.A., Competing on resources. *Harvard Business Review*, 86(7/8), 140. 2008.
- Feldman, E.R., Corporate strategy: Past, present, and future. *Strategic Management Review*, 1(1), 179–206. 2020.
- Feldman, E.R., The corporate parenting advantage, revisited. *Strategic Management Journal*, 42(1), 114–143. 2021.
- Fähndrich, J., A literature review on the impact of digitalisation on management control. *Journal of Management Control*, 34(1), 9–65. 2023.
- Goold, M., Campbell, A., & Alexander, M., Corporate strategy and parenting theory. *Long Range Planning*, 31(2), 308–314. 1998.
- Goold, M., Alexander, M., & Campbell, A., *Corporate-level strategy: Creating value in the multibusiness company*. 1994.
- González-González, I., Serradell-López, E., & Castillo-Merino, D., The implementation of process management: A system to increase business efficiency—Empirical study of Spanish companies. *International Journal of Knowledge Society Research (IJKSR)*, 3(1), 14–25. 2012.
- Kristina, K. & Gulnar, S., Improving business processes of an industrial enterprise. *KAFU Academic Journal*, 2019.
- Krühler, M., Pidun, U., & Rubner, H., First, do no harm—how to be a good corporate parent. *BCG Report*, 2012.
- Puranam, P. & Vanneste, B., *Corporate strategy: Tools for analysis and decision-making*. Cambridge University Press, 2016.
- Rezaei, J., Best-worst multi-criteria decision-making method. *Omega*, 53, 49–57. 2015.
- Roghé, F., et al., *Designing the corporate center: How to turn strategy into structure*. BCG Report, 2013.