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Systematic Literature Review on Hoshin Kanri Methodology and Application in the Service Sector

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Abstract

Purpose: Hoshin Kanri (HK) is a strategic framework that aligns all levels and individuals in an organisation to the same strategic objectives. This approach has proven significant benefits in manufacturing, while its application in service industries remains relatively underexplored. This paper aims to provide a general overview of HK and explore its potential contributions when implemented in service-related environments.

Methodology: A systematic literature review was conducted using predefined criteria and keywords to search the Scopus database. The qualitative analysis of selected papers was structured according to research questions, enabling a comprehensive synthesis of relevant insights.

Findings: The limited number of relevant papers on HK implementation in service industries suggests that this area is still in an early stage of academic exploration. The results indicate that companies report distinct advantages from utilising HK in their services, including a better understanding of customer needs, a clearer connection between business strategy and KPIs, and improved process performance, among others. The results also show that there are certain obstacles to HK implementation, such as difficulties in focusing on a narrower set of objectives, a lack of experience in applying similar concepts (such as TQM), and resistance to change. These obstacles, along with contextual factors specific to service industries, often require adjustments when implementing HK.

Research limitations and implications: Deficient articles address this topic, and it has only been covered in a few areas of the service sector, which limits the depth of the insights and makes generalisation of the results difficult. This indicates a need for further empirical studies to build a foundational understanding of the HK phenomenon and validate and adapt HK principles to service contexts. Future research should also expand to other services and provide more concrete results of implementing the HK.

Originality and Value: To the best of the authors' knowledge, this paper presents the first effort to provide a systematic literature review of HK specifically for the service environment.

Keywords: Hoshin Kanri, Policy deployment, service sector

Paper type: Literature review

1. Introduction

Policy deployment, also known in the literature as strategic planning and strategic management, should help organisations observe external and internal factors, which will lead them to identify their priorities (McLean, 2006). This process involves implementing actions, allocating resources, and making decisions based on long-term objectives. It also allows the company to discover its competitive advantages (Abro et al., 2009; Kay et al., 2003).

According to the Lean Enterprise Institute (2008), Hoshin Kanri is a process that guarantees that an organisation's functions and activities are aligned with its strategic goals at all levels and across departments. It involves creating a detailed plan defining clear objectives, actions, deadlines, responsibilities, and performance metrics.

What sets HK apart from other strategy formulation and implementation methodologies is the application of the Plan-Do-Check-Act (PDCA) cycle, which is applied at all levels and to all processes of the organisation (Ahmed, 2016). It also bridges the gap between organisational vision and operational execution. HK also helps an organisation to find its direction and create a roadmap for continuous improvement (Wilson et al., 2024). Unlike traditional strategic planning methods, it focuses on defining what should be achieved and how objectives can be achieved.

Problems that occur when implementing HK are related to the adoption of best practices, which are not adapted to the conditions prevailing in the company itself. In addition, there is no will to change things from the roots, so these attempts are usually cosmetic (Marksberry, 2011).

HK is just one of the various methods for strategy deployment; among the most frequently employed are Management by Objectives (MBO) and the Balanced Scorecard (BSC). MBO stands out for its precise goals and high employee engagement, as they are involved in setting goals and performance measurement. On the other hand, MBO can be rigid in dynamic situations, focusing on short-term goals instead of long-term goals (Tennant & Roberts, 2001). The advantages of BSC are reflected in a holistic view of financial and non-financial performance, alignment of short- and

long-term perspectives, and presentation of strategy at all levels. However, the disadvantages are subjectivity in measuring non-financial performance, implementation that requires a lot of time and resources, and loss of focus due to numerous defined measures.

Strategic planning should answer key questions such as where the organisation is now, what the goal destination is, and how to get there, but also remain realistic in planning due to the unpredictable circumstances and the worst-case scenario in business (Herter, 1995). Additionally, it opens opportunities for discovery, innovation and creativity (Dias & Tenera, 2020). Important aspects of strategic planning for services include defining goals related to understanding customers' needs and improving service design and quality, and customers' experience (Larsen et al., 2007), resulting in increased profits and loyalty (Iqbal et al., 2014; Chieh-Peng et al., 2015; Einspruch, 2006; Pimentel & Major, 2016). A dynamic environment, such as the service sector, requires adaptability, which could be provided by HK because of its application of the PDCA cycle (Mulligan et al., 1996).

There is a much larger number of published articles and case studies related to HK in the manufacturing sector, compared to the service sector (Marsden, 1998; Wilson et al., 2024). The service sector seems to lag behind manufacturing in understanding management by process. It also often has problems prioritising business objectives, corporate priorities, and how people affect these objectives and priorities (Marsden, 1998). Since the outputs in the manufacturing industries are tangible, the effects of certain actions can be more easily measured and perceived, whereas in services, it is more difficult to remain consistent in applying a specific methodology. Other challenges and opportunities of the service sector are the unique customer experience and the variability of service delivery.

This paper aims to provide a general overview of HK methodology, with a focus on exploring its potential contributions and challenges when implemented in service-related environments, as well as identifying research gaps and directions for future research.

The structure of the paper is as follows: Section 2 provides a theoretical background of the HK methodology, as well as explanations of its elements; Section 3 presents how the research method of this research was conducted; Section 4 represents the main topic of this research, focusing on a literature review on the implementation of HK in service sector and on the development and application of other models applied together with HK; Section 5 includes discussion; and Section 6 is reserved for the conclusion, limitations of this research and recommendations of future research.

2. Theoretical background of Hoshin Kanri

Hoshin Kanri is a methodology that originated in Japan in the 1960s. The term consists of two words: *Hoshin*, meaning 'plan' and 'target', and *Kanri*, meaning 'planning' and 'control'.

Translated together, *Hoshin Kanri* has the meaning of 'policy deployment', 'policy control', 'management by policy', and other similar terms. If the deeper origin of the word *Hoshin* is observed, then it can be divided into *ho*, meaning 'method' or 'form', and *shin*, meaning 'compass' (Akao, 1991). The first companies that adopted HK were Hewlett-Packard and Fuji-Xerox (Cole, 1999). Various companies that implemented HK used their names for it, such as 'Hoshin planning', 'managing for results', 'management by policy', 'strategy into action', 'world-class management', and so on (Cowley & Domb, 1997).

In connection with the origin of these words, HK gives structure and direction or guides the organisation toward its goals, one of which is surely continuous improvement (King, 1989). Additionally, it is also seen as a systematic approach to achieving challenging goals at the highest hierarchical level. Total Quality Engineering (1997) focuses its definition on the people and how they should approach the implementation of HK. Roche & Baumgartner (2025) perceive HK as an agile strategy deployment framework that could help an organisation to maximise its value.

It considers various aspects such as continuous improvement, breakthroughs, and implementation (King, 1989). What sets this approach apart is the involvement of the entire organisation, both top-down and bottom-up, in strategic planning. It ensures that the entire organisation works towards a common goal, like a team that has coordinated its work, communication, and feedback. All the elements of the HK model and their connections are illustrated in Figure 1.

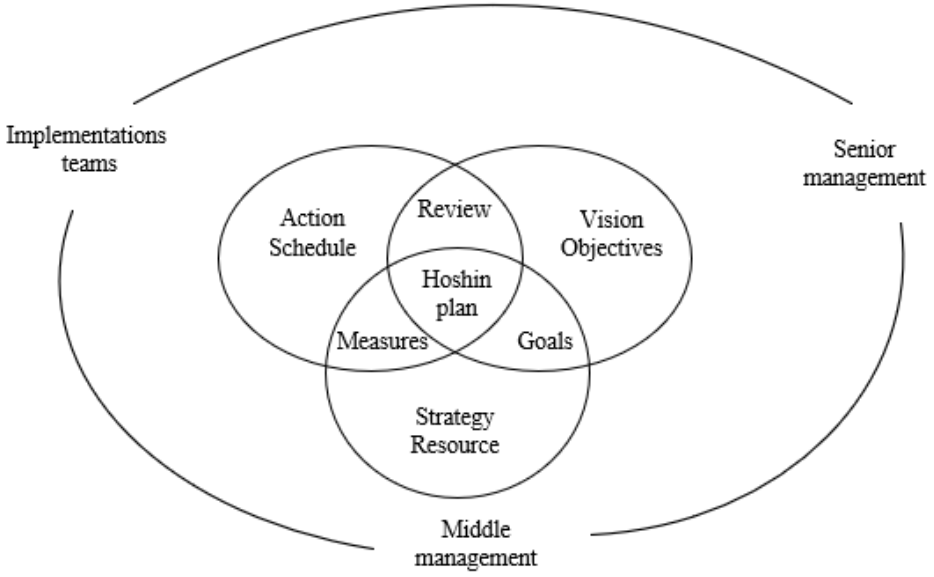

Figure 1. Hoshin model (Leppänen, 2014)

In the lean strategy architecture, HK is the name for a process of policy deployment. The goal of HK is to align corporate strategic objectives defined by top management with the plans, activities, and execution performed at the middle and operational levels. In other words, all members of an organisation work together toward the same long-term goals. HK enables the linking of mission,

strategies, objectives, and goals (Grant, 2016), meaning the decomposition of strategy to achieve goals more easily and to increase the probability of achieving them.

The connection between HK and the PDCA cycle is formalised in the context of strategic continuous improvement. The role of PDCA is to ensure that planned strategies and goals are carried out and corrected if needed (Ahmed, 2016).

A common framework for HK implementation is adapted from Deming's PDCA cycle, called the FAIR model, whose letters represent the acronym of the four phases (Witcher & Butterworth, 1999):

1) Focus – the purpose of this phase is to identify which strategic objectives are most relevant and important in the near future, so focusing on a few objectives will give better results, because there is no waste of effort;
2) Alignment – available resources are allocated to the strategic priorities identified in the previous phase, also Hoshin policies are also created;
3) Integrate – Hoshin policies are adapted to daily activities and included in an implementation plan;
4) Review – the results of the policies' implementation are evaluated, among other things, corrective measures are defined if needed. Outputs of this phase will be used for improving the next Hoshin cycle, usually scheduled once a year.

Apart from the FAIR model, there is also the CRIS approach for the application of HK, whose elements are catch, reflect, improve, scrutinise, and pass. Each individual or team must improve the policy before passing it further (Lee & Dale, 1999). However, the disadvantage of this approach is that no systematic steps are available (Yang & Su, 2007).

Catchball (also known as nemawashi in Japanese) represents one of the core elements of the HK model, which encourages alignment, clarification, and employee involvement (Su & Yang, 2015). The term is derived from baseball, comparing throwing and catching a ball with communication within an organisation. This communication should be two-way, top-down, bottom-up, and collaborative. Every objective, plan, and problem should be discussed at all levels (Lee & Dale, 1998; Tennant & Roberts, 2001). However, the name of the catchball process symbolises that the "ball" must be thrown and returned from person to person several times to completely understand its essence (King, 1989). The purpose of this process is to translate strategies into objectives at the lower levels, considering the relationship between causes and effects (Su & Yang, 2015).

Hoshin Kanri, as a methodology, uses lean tools, which are usually connected with performance improvement, such as increasing efficiency, effectiveness, and cost reduction. In this case, those lean tools are X-Matrix and A3 report. In addition to the listed benefits, HK also enables a focus on strategy and its implementation.

According to Barnabè & Giorgino (2016), X-Matrix is the heart of the HK planning process. It is a structured reporting framework whose aim is to integrate long-term goals, strategic objectives, improvement initiatives, and key performance indicators (KPIs). X-Matix gives instructions on the order of filling fields and helps define the correlation between its elements. As a result, an organisation translates their long-term objective into short-term tasks and gains insight into which strategy has the greatest impact on KPIs.

Thürer et al. (2018) distinguish a serious discrepancy between how the HK methodology is described in the literature and how it is applied in practice. To close that gap, they recognised three distinct processes of HK planning: translation process (converting goals into measurable attributes), causal inference process (predicting realisable attributes), and alignment process (filling the gap between desired and realisable attributes).

A typical HK planning process is shown in Figure 2 (Jolayemi, 2008). The first four steps include planning, developing, and converging objectives through the catchball process. The other three steps focus on the implementation and audit, which is the basis for continuous improvement. The annual review represents input for corrections of the organisation's vision, plan for a few years, and annual objectives. The described planning process is repeated each year.

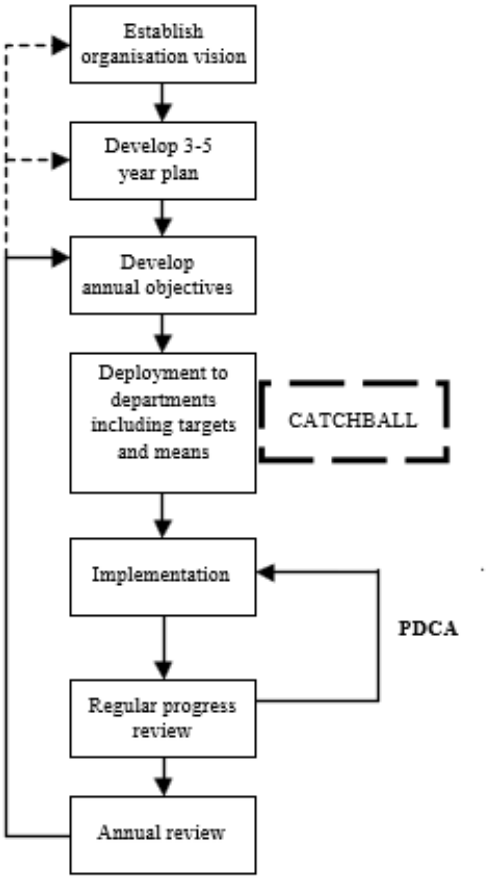

Figure 2. Steps of the HK planning process (Jolayemi, 2008)

It is believed that the most common reason why strategies fail is that strategy formulation and its implementation are viewed separately, which is not the case with HK (Kunonga et al., 2010). Practitioners share the opinion that the main challenge in implementing HK is determining a vital few objectives, which might conflict with the framework (Asan & Tanyaş, 2007).

And as for HK specifically for the service sector, Ahmed (2016) developed a framework for the implementation of HK in educational institutions and examined the factors that can influence this process. Six factors have been singled out that can influence the outcome, five of them are intuitive and widely used, while one stands out as very significant in the area of education, stating that institutions should be open to change, and understanding of institutional culture is key for HK implementation. The proposed framework is based on the 10-step model proposed by Akao (Akao, 1991), which is grouped into four phases of the FAIR model. When HK is implemented, the PDCA cycle is used, starting at the ACT stage, whose goal is for top management to set core policies. Afterwards, the PLAN stage is for setting targets and needed resources, but also for the catchball process, DO for executing daily activities through another PDCA cycle, and finally CHECK for screening results and revising the process. After a year, the new PDCA cycle starts, again at the ACT stage. In the proposed framework, the PDCA cycle is highlighted as particularly important as a basis for improvements. It was also stated that HK is best used by institutions that have already adopted TQM, which emphasises quality control and its principles. Other advantages noted were adjusting a few priorities yearly, their alignment with business plans and programs, and integrating them with everyday management. It is essential to point out that the accuracy of this framework has not yet been verified in practice.

3. Methodology

In order to gain insight into all relevant aspects of the application of Hoshin Kanri in a service environment, research questions are posed:

- *To what extent has Hoshin Kanri been implemented in service organisations?*
- *What positive outcomes and advantages have been observed from the implementation of Hoshin Kanri in service organisations?*
- *What are some common challenges or barriers that organisations may encounter when implementing Hoshin Kanri in service settings?*
- *In what ways has the implementation of Hoshin Kanri been adapted or modified in service-related environments?*

The Scopus database was used for searching articles. The title, abstract and keywords of articles should contain the terms “Hoshin Kanri” or “Policy Deployment” as the first criterion, and the second criterion should contain at least one of the terms “services”, “service industry” or “service sector”. These two criteria were connected by an AND logical operator. There were no time restrictions.

As a result of the search in the Scopus database, 31 articles were found. In order to check whether the obtained articles correspond to the research questions, a reading of article titles, abstracts and keywords was carried out. Articles were included if they directly addressed HK implementation. Only nine articles appear to be relevant to the research topic. Then the full papers were accessed, which was possible for seven papers. After reviewing all the papers, the number was reduced to three articles. Since three articles do not constitute a representative sample, the search was expanded by reviewing the reference lists of selected articles and by using Google Scholar with the same keywords, which led to the identification of an additional five papers addressing the topic. The final sample consists of eight articles. According to Voss et al. (2002), the fewer the number of articles, the greater the depth of the observations. The procedure for collecting and selecting the literature is given in Table 1.

The literature included in this research is based only on practical applications in the service sector. A systematic literature review was chosen, as it provides a review of the present state of knowledge in a specific subject based on methodical behaviour (Tranfield et al., 2003).

Table 1. Procedure of the literature collection and selection

	Steps of the procedure	**Results**
1	Selection of a database	Scopus
2	Defining criteria for the article title, abstract and keywords	(“Hoshin Kanri” OR “Policy Deployment”) AND (“services” OR “service industry” OR “service sector”)
3	Database search	31 articles
4	Reading titles, abstracts and keywords	9 articles
5	Accessing papers	7 articles
6	Reading full papers	3 articles
7	Sample expansion through reviewing the reference list of selected articles and Google Scholar	8 articles

4. Literature Review on Hoshin Kanri in the Services

The literature review is divided into several sections in order to answer the research questions as best as possible. In the analysis section, all relevant papers from the final sample will be included.

4.1. Assessment of Implementation Level of Hoshin Kanri in Services

For the purpose of improving the strategy deployment process Pun et al. (2000) implemented HK in an engineering service laboratory, while Quality Function Deployment (QFD) was used to identify customer needs. Continuous improvement of quality was identified as crucial for the design of service, as it directly affects customer satisfaction.

After implementing HK for ten years in the manufacturing sector, Roberts & Tennant (2003) wanted to apply it in the service sector, so higher education was chosen for that purpose, because it was facing challenges in aligning its strategic goals with daily operations, especially when its workload expanded.

Asan & Tanyaş (2007) implemented a five-step methodology combining HK and BSC for planning, implementation, and monitoring strategy in a higher education institution for engineers, considering that interest had remained the same since the introduction of the program.

HK was applied through the development and early implementation of a strategy for the purpose of coordinating the strategy at the local level (Kunonga et al., 2010).

The human resources department (HR) in a high-tech manufacturing company was also one of the places of application of the HK planning process. Due to a lack of manpower, the company decided to improve this process to avoid high overtime rates and increased expenses (Su & Yang, 2015). Although the company operates in the manufacturing sector, this example is relevant because it is applied only to the recruitment process in HR, which represents the company's internal service.

A simulation with role playing, divided into teams, was conducted for the purpose of defining a long-term strategy considering all strategic elements, and also for defining short-term, medium-term, and long-term KPIs for a hospital (Barnabè & Giorgino, 2016).

HK, in combination with QFD and benchmarking, was applied to define a long-term strategy related to customer satisfaction in healthcare (Gonzalez, 2019).

Roche & Baumgartner (2025) conducted a case study in an organisation that had already been implementing HK and X-Matix for four years. The organisation operates in the field of logistics and has a flat hierarchical structure. Due to the external pressures, regulations, changes in the labour market, geopolitical circumstances, and lack of energy, they decided to use HK and X-Matrix for corporate sustainability implementation. The X-Matrix was used to review the current status every three months within all departments.

4.2. Positive Outcomes of Implementing Hoshin Kanri in the Services

Managers reported that HK helped them redefine the laboratory direction toward new goals that reflected the aim for growth and development. Through this approach, customer satisfaction criteria were also identified, which served as a starting point for decisions related to strategy. The frequent advantages of HK, such as integrating vision with daily operations and measuring the extent to which the goals had been achieved, were also noted (Pun et al., 2000).

The catchball process was used to achieve team consensus, and annual reviews were used to track progress and adapt to emerging challenges. The results of HK reflected positively on the team's

understanding of diverse customer requirements, but also enhanced motivation and purpose among the Q&R team members. Achievements included better strategic alignment and significant improvements in operational processes like research, teaching, and consulting (Roberts & Tennant, 2003).

HK was used for the deployment and execution of strategies since the BSC does not support a bottom-up approach, communication, and strategy implementation (Kanji & Sa, 2002; Lohman et al., 2004). A defined strategy was translated into implementation plans (Asan & Tanyaş, 2007), making the strategy realistic and attainable. Continuous monitoring of plans enabled an adequate response at any time (Asan & Tanyaş, 2007).

Principles of HK were practical to implement, and the public sector and healthcare succeeded in improving the quality of health services and making them accessible to the larger population (Kunonga et al., 2010).

Redefined recruitment process by application of HK resulted in significant improvements, which were demonstrated through a reduction of hiring costs by US$360,000 over five years, and a 40% shortening of recruitment cycle time (Su & Yang, 2015).

The main advantage of HK alignment of strategic objectives with operations through the collaborative approach in activities such as decision-making, planning, and everyday tasks. The FAIR method provided precise guidelines for HK implementation and translation of the hospital's mission and strategy into tactics and action. The simulation also showed that the X-Matrix significantly helps in the visualisation of the correlation between strategies, objectives, and KPIs, but also in revision and improvements in the upcoming HK cycles (Barnabè & Giorgino, 2016).

It was also shown that HK empowered employees to take part in problem solving and engaged them in participating in the planning process. Motivation for learning, fast responsiveness to corrections and cross-departmental coordination were noticed in the staff. HK X-Matrix translated the improvement initiatives into action, and ownership and accountability for those actions (Gonzalez, 2019).

HK helped in formalising long-term objectives, projects, and KPIs. The construction process of the X-Matix remained easy to use because of the company's previous experience. According to the HK process, the top management had a responsibility to define and implement sustainability strategies and objectives, which they found beneficial. Other perceived advantages of HK were the visualisation of the linkage between long-term strategies and KPIs. The case study concluded that HK supported corporate sustainability through directing strategy to these objectives and continuous improvement through feedback (Roche & Baumgartner, 2025).

4.3. Challenges of Implementing Hoshin Kanri in the Services

For the effective implementation and monitoring of the HK methodology, supportive and engaged staff oriented toward continuous improvement are necessary (Pun et al., 2000), which requires time and motivation.

Case study participants pointed out how difficult it was to focus on just a couple of objectives, or rather, to decide which objectives were more important than the others (Barnabè & Giorgino, 2016). A similar statement was also made by Asan & Tanyaş (2007).

In one case, HK was perceived as difficult for the planning process, so other frameworks were considered more suitable for that purpose. Also, lower levels struggled with allocating resources after the methodology was introduced to them. When the OGIM framework for HK was used for the detailed planning of all activities, it led to employee burnout. And overall conclusion was that additional training and support were needed (Kunonga et al., 2010). Roche & Baumgartner (2025) also drew attention to problems with employees overloaded with their daily tasks, which resulted in a refusal to adopt the HK principles.

Working in teams created by Hoshin principles resulted in completely different solutions (Barnabè & Giorgino, 2016), which can be challenging during the alignment of results.

4.4. Modifications of Hoshin Kanri in the Services

While QFD was used as support for HK, the Voice of Customer (VOC) was identified for a better understanding of customers' requirements. A 13-step framework for Quality Strategy Development and Deployment was conducted, consisting of two stages. The second stage was related to HK, consisted of seven steps focused on defining goals and their alignment with the strategy (Pun et al., 2000).

Roberts & Tennant (2003) implemented a six-step HK framework adopted by King (1989) and adapted based on their experience in practice, which included defining a five-year vision, setting vital goals, and creating annual plans with clear milestones.

As a way to compensate for HK's imperfections in terms of defining vital objectives, the BSC was used for building a strategic framework. Asan & Tanyaş (2007) developed a methodology based on the BSC as a performance-oriented approach focusing only on the results, and Hoshin Kanri as a process-oriented approach focusing also on the means. The BSC was used for building a strategic framework. The methodology proposed by Asan & Tanyaş (2007) is illustrated through the conducted case in higher education, and the steps are as follows:

1) Preparation activities – SWOT analysis was applied to perceive the current situation and opportunities to develop possible strategies;
2) Building the scorecard – within the scorecard, the strategic objectives and critical success factors are integrated, focusing on attracting better students, training of teaching personnel

as a reason for improving the quality of education and academic position, and popularisation of the program to increase income;
3) Strategy map – provide an overview of all four perspectives of the BSC and correlations between its elements, the main goal, which is to create a brand, is depicted at the top of the map;
4) Deployment of strategies – strategies were translated into implementation plans, measures were determined for all objectives, and two levels of the Hoshin plan were defined;
5) Implementation of plans – as plans are implemented, they are constantly reviewed to ensure the best result, and overall performance of the cycle is reviewed with the BSC.

The used framework in public sector healthcare was OGIM instead of the traditional X-Matrix, whose elements are objectives, goals, initiatives, and monitoring metrics. Interestingly, goals are set from the customer's perspective, and they are the basis of the organisation's vision and mission. For the creation of the OGIM framework, four iterative steps were applied, which are alike steps from the FAIR model (Kunonga et al., 2010).

The EIDPER model, as an extension of HK, was previously implemented by Yang and Su (2007) in the semiconductor manufacturing industry. Therefore, they expanded their research to the services. The case study on the recruitment process included the following phases, according to the model:

1) Envision – the SWOT analysis was conducted to identify all relevant aspects of the problem and challenges of the recruiting process;
2) Identify – the outputs of the SWOT analysis indicated that the company needed to reduce the impact of competitors and implement a new strategy, which will shorten the duration of the interview duration;
3) Diagnose – the current situation was observed, root causes were identified, and potential solutions were proposed;
4) Prioritise – the STER framework (Simplification, Transfer, Elimination, and Regrouping) attributes were used to identify restructuring the interview process as a priority;
5) Execute – final solutions included restructuring the interview process, adjusting salary proposals, and leveraging cost structure concepts to enable a more flexible hiring process;
6) Review – the improved process was evaluated and measured; all improvements were identified.

As simulation was perceived as motivating, learning-oriented, improving performances and quality of the group decision-making process, exchanging knowledge and validating the results (Wolfe & Crookall, 1998; Faria, 2001; Gredler, 2004; Kriz & Hense, 2006; Crookall, 2010), for that reason, it was applied to create X-Matrix. Also, the HK FAIR model was used for this simulation (Barnabè & Giorgino, 2016).

HK has also been used in combination with QFD and benchmarking. As a tool of QFD, HOQ was chosen for the identification and prioritisation of customers' needs, their translation into engineering processes and the development of targets (Gonzalez, 2019).

A comparative overview of the most important attributes of the final research literature is presented in Table 2.

Table 2. Literature overview

Authors	Research focus	Methodological approach	Sector	Limitations
Pun et al., 2000	Integration of QFD and HK	Case study	Engineering service laboratories within higher education	Require high interdepartmental coordination
Roberts & Tennant, 2003	Implementation of HK's six-step planning system	Case study	Higher education	Limited to small teams, findings are not generalised
Asan & Tanyaş, 2007	Development of a methodology that combines HK and BSC and its implementation	Literature review, case study	Higher education	Generalisation of the methodology requires further research
Kunonga et al., 2010	Implementation of HK with the OGIM framework	Literature review, case study	Public sector healthcare	Related only to the early stage of implementation
Su & Yang, 2015	Implementation of HK with the EIDPER model	Literature review, case study	Human resources	The model was applied only to the recruitment process
Barnabè & Giorgino, 2016	Validation of HK policy deployment and X-Matix	Case study, simulation, role-playing	Healthcare	Outcomes of the simulation are hypothetical, not tested in practice
Gonzalez, 2019	Improvement of customer satisfaction with HK, QFD and benchmarking	Action research, case study	Healthcare	No quantitative results after strategy implementation
Roche & Baumgartner, 2025	Using HK for the implementation of corporate sustainability	Case study, interviews	Logistics	Not generalised, lack of systematic methodological procedure

5. Discussion

- *To what extent has Hoshin Kanri been implemented in service organisations?*

The most common reasons why organisations decided to implement HK were problems with strategy formulation (Pun et al., 2000), alignment across all organisational levels (Kunonga et al., 2010), defining KPIs (Barnabè & Giorgino, 2016), and translating plans into action (Asan & Tanyaş, 2007). But behind it all, organisations wanted to improve their business performance and customer satisfaction. Also, some external challenges influenced the need to redefine the strategic processes.

It has also been shown in the research conducted by Su & Yang (2015) that HK can be implemented in a single organisational department, independently from the rest of the organisation. As there are only eight examples that indicate the application of HK in the service industry, this indicates that it is not yet widely adopted in this area.

- *What positive outcomes and advantages have been observed from the implementation of Hoshin Kanri in service organisations?*

The perceived advantages coincide with the foundation of HK thinking. These advantages included the formulation of a strategy aligned with the most important organisational goals, alignment of daily activities with plans, a clearer connection between business strategy and KPIs, improved understanding of processes through communication across all organisational levels, and visualisation of strategic elements, among others. The results also indicate that companies succeed in better understanding customer needs, which is consistent with the observation by Robert & Tennant (2003). Other results related to redesigning business processes and improving their performance are confirmed by Su & Yang (2015).

- *What are some common challenges or barriers that organisations may encounter when implementing Hoshin Kanri in service settings?*

The basic prerequisite for the fulfilment of the HK principles is the involvement of every employee at all levels in the organisation, which proved to be challenging to implement. Employees preoccupied with their daily tasks considered the additional activities related to HK unnecessary. There were also problems with the allocation of resources, planning activities and a lack of support. All of that resulted in employee burnout, which was highlighted by Roche & Baumgartner (2025). On the other hand, Lee & Dale (1998) and Tennant & Roberts (2001) consider communication essential for employees' involvement. This suggests problem could be solved in two ways: the first is to actively work on communication itself, to collect new ideas and discuss them; the second approach would be to analyse the process, improving and redesigning it, which would make possible to lower employees’ overload and create space for thinking about HK.

Since HK is commonly used in combination with QFD and BSC, this indicates that the intention is to overcome certain shortcomings of HK.

- *In what ways has the implementation of Hoshin Kanri been adapted or modified in service-related environments?*

In the models used for the application of HK, the number of steps varies; also, examples of applied models are OGIM (Kunonga et al., 2010) and EIDPER (Yang and Su, 2007; Su & Yang, 2015). The basic idea of these models is the same, but the differences are significant.

In combination with HK, QFD and its tool, HOQ, were used to easily recognise customer needs and prioritise them, what was applied by Pun et al. (2000) and Gonzalez (2019). Also, HK was used in combination with BSC by Asan & Tanyaş (2007), in order to develop a strategic framework, while with HK it is difficult to choose a few vital goals.

6. Conclusion and Future Directions

What can be observed in the selected articles is that more importance is given to the development of specific models and the prepositions of steps, where it can be noticed that in each article those models and steps differ, instead of focusing on concrete effects, whether they are positive or negative, as a result of application of HK. Models and steps used in selected articles essentially represent extensions and variations of the FAIR model.

As this topic does not have enough examples to show whether HK is effective in the service sector, it is considered, it is more important to adopt a generally known model for implementing HK methodology. This would allow results to be compared between different areas of the services sector and as well as the expansion of research that would lead to the development of a unique model for all areas of the service sector.

Except for one example, the other examples do not give concrete quantitative results of the application of this methodology. It was generally stated that this methodology helped in a better understanding of various processes and improving operations, which is subjective and, in the long run, inaccurate. The results of this methodology should be defined in the following form: which specific progress was achieved over a certain period, presented quantitatively and is related to the HK application.

All of these case studies have one disadvantage in common, which is a lack of time to show whether this policy deployment process has long-term positive effects. In theory, business performance should be improving, and these studies showed that. But over time, the learned routine is going to be lost, and these results are going to fade. Therefore, future studies should concentrate on showing whether these results are sustainable and significant for business.

On paper, this approach to strategic planning is perfect for integrating different elements on different levels of the organisation and for focusing on achieving several of the most vital objectives in order not to waste the energy of the organisation's employees, but also has practical implications, which will prove that it is achievable and realistic.

Drawbacks of this research are the homogeneity and the size of the final sample of articles. Three out of eight papers are related to the field of education, and three to the field of healthcare. Furthermore, the examples refer only to education, healthcare, human resources and logistics, while other significant areas of the service sector, such as finance, trade, tourism, IT, entertainment, real estate and others are missing. After a detailed search of the paper database, as explained in the section about methodology, to the best of the authors' knowledge, there are only eight available articles related to the topic of the HK application in the service sector.

The conclusion that naturally arises is that eight articles are not enough to comprehensively analyse the topic of HK in the service sector, and future research needs to be extended to other areas of the service sector to obtain a broader and more accurate perspective.

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