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Management control and quality indicators in healthcare: a literature review.

Auteur 1 : RAJIA ELFOGHI.

RAJIA ELFOGHI, (PhD student)
Faculty of legal, Economic and social sciences
University FSJES, Hassan II Casablanca, Morocco

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Abstract

This paper reviews recent literature on management control systems (MCSs) and quality indicators (QIs) in healthcare to assess how they contribute to improving organizational efficiency and patient outcomes. Using a systematic literature review (SLR) approach based on the PRISMA methodology, articles were retrieved from Scopus and Web of Science databases covering the period 2000–2024. A total of 68 peer-reviewed studies were included after applying inclusion and exclusion criteria related to management control, healthcare quality, and performance evaluation. The findings show that traditional control tools (budgeting, variance analysis, financial dashboards) remain dominant but are increasingly complemented by modern approaches such as the Balanced Scorecard, performance dashboards, and benchmarking practices. The literature highlights three recurrent quality indicators: waiting times, readmission rates, and patient satisfaction, which represent both quantitative and qualitative dimensions of performance. However, the review also reveals major challenges in implementing MCSs, including high costs, technical complexity, and staff resistance. The main conclusion is that integrating financial and non-financial metrics through comprehensive control systems strengthens healthcare quality and organizational performance, but future research must address contextual barriers in developing countries to ensure broader applicability.

Keywords: Management control, healthcare quality, Balanced Scorecard, patient satisfaction, Key Performance Indicators.

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Introduction

Faced with rising patient expectations liable to strain resources short of facilities, health care establishments ought to figure out how to combine efficacy and convenience. The management control system which medical chiefs employ to measure performance, streamline operations, and make certain that strategic objectives are achieved is now an essential tool for those healthcare managers. Through the use of such management control systems as Balanced Scorecard (Kaplan & Norton, 1992) and Key Performance Indicators (Atkinson et al., 1997), healthcare institutions can keep track of all the relevant financial and non financial yardsticks which determine their overall performance.

At the heart of the process lies the measurement of healthcare quality indicators, which provide an overview of how well an organization is doing in such spheres as patient satisfaction , waiting times, and readmission rates. One result of this emphasis on indicators is that the indicators themselves serve to represent two sides of the same coin: on the one hand, we have objective data which can be benchmarked and followed over time waiting times and readmission rates, for instance; while on the other hand are qualitative measures patient satisfaction reports which show us what patients really experienced plus how they rated their care. Definitions offered by Donabedian (2005) emphasize this dual approach towards measuring quality in healthcare.

This review paper examines how management control systems can improve healthcare quality by analyzing key indicators: waiting times and readmission rates along with patient satisfaction. It also looks at the obstacles that healthcare organizations face when they try to create these systems, all of which include high costs, complexity in implementing them and resistance from staff members who have not yet had exposure to this type of approach. Finally, this text may give readers an idea about what future potential management control systems hold for increasing organizational efficiency and service quality: if they are to have any future in healthcare management, then they must be considered indispensable.

I. Management control in healthcare institutions: conceptual framework

1. Definition of management control in healthcare

Healthcare organizations often have complex missions, with competing demands for financial solvency and high quality patient care.A classic example of this complexity is illustrated by McKinsey & Company, which was employed as a consultant by a hospital wishing to develop a strategy for medical education. The reasons given for needing an entirely new program were that its core competencies lay beyond the normal scope either in radical life saving emergency treatment, which required minimal infrastructure, or in preventive healthcare not tied

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specifically to hospital care. This demonstrates the complexity and diversity of goals that healthcare institutions must manage.

One of the significant difficulties is that healthcare institutions require management control systems that can integrate their dual foci on both care quality and financial solvency. Abernethy and Stoelwinder (1991) emphasize that hospital management systems need to integrate clinical with administrative processes to meet the demands of the various stakeholder groups, including patients, regulators, and financial sponsors (many of whom may also hold positions at the board level). Management control in healthcare can be divided into traditional and modern approaches. Financial accounting, based on historical results, is the traditional method of management control in healthcare. This approach has been used to align future performance with past results, mainly through tracking financial performance. Hopper et al. (1987) argue that traditional control methods focus primarily on comparing historical costs and conforming to predetermined financial targets. In these traditional models, control tools such as budgeting, cost accounting, and variance analysis primarily serve to monitor financial performance within set limits. However, traditional methods are often criticized for their inability to capture the complexities of healthcare service delivery. Abernethy and Chua (1996) have argued that traditional management control frameworks often neglect non financial aspects of performance, such as patient outcomes, satisfaction, and quality of care factors that are central to a hospital's mission. This criticism has pressured management control systems to evolve, adapting to modern healthcare demands. As a result, modern systems more flexible, integrative, and future oriented have emerged to replace the old models.

Modern management control in healthcare is an extension of traditional methods but incorporates both financial and non financial metrics. Kaplan and Norton’s introduction of the Balanced Scorecard in 1992 marked a significant leap in management control.

2. Evolution of management control tools in Healthcare Institutions

History of management control tools in healthcare

In the early days, healthcare institutions used simple tools like financial dashboards and variance analysis to manage performance. Although these early systems were effective for tracking costs and ensuring that healthcare entities adhered to financial plans, they were reactive and limited in scope, focusing primarily on financial performance. As healthcare facilities expanded to provide better medical treatment at lower costs, the reality of limited human and spatial resources, the necessity for higher quality care at reduced costs, and shorter response

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times made it clear that traditional healthcare performance measurement methods were no longer sufficient (Anthony, 1988).

The 1980s and 1990s

This period saw greater integration of metrics like Key Performance Indicators (KPIs) as a patient management tool. It is considered one of the most influential periods in healthcare management history, with many contemporary managers arguing that its effects still linger today. This comprehensive view of performance evaluation combined both financial and non financial indicators to measure total performance (Parker, 1996). KPIs included measuring factors such as patient satisfaction, employee productivity, and clinical outcomes. Hence, healthcare institutions no longer monitored only their financial performance but began to evaluate these non financial elements as well. Atkinson et al. (1997) argue that KPIs revolutionized the management landscape of healthcare by providing a more holistic view of institutional performance.

Development of operational control tools

The introduction of the Balanced Scorecard (BSC) by Kaplan and Norton (1992) led to unprecedented changes in healthcare management control tools. While earlier performance tools focused primarily on financial metrics, the BSC enabled organizations to assess management and performance across four dimensions: financial performance, patient satisfaction, internal processes, and learning and growth (Kaplan & Norton, 1996). By adding non financial metrics to the performance management system, the BSC overcame one of the key shortcomings of earlier tools the exclusion of important non financial aspects of healthcare management.

The BSC has been widely adopted in the healthcare industry because it enables organizations to align their strategic objectives with operational practices (Zelman et al., 2003). For instance, a hospital that uses the Balanced Scorecard can measure its financial outcomes, patient satisfaction levels, and clinical process efficiency all at once (Inamdar et al., 2002). This balanced approach allows hospitals to achieve high quality patient care while staying within financial constraints something healthcare institutions have struggled to achieve consistently.

With the advent of more dynamic and real time systems, the Balanced Scorecard evolved into tools like performance dashboards (Behn, 2003). Dashboards now allow hospital administrators to monitor key indicators such as patient waiting times, staff utilization rates, and clinical outcomes in real time eliminating the delays associated with traditional reporting systems (such as waiting for the next quarterly report). Performance dashboards are now widely used in

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healthcare organizations as tools for collecting and displaying data in real time, providing decision makers with the information they need to make prompt operational or strategic adjustments (Grigoroudis et al., 2012). As Palvannan and Teow (2012) observe, these dashboards are essential for improving operational efficiency by identifying bottlenecks in patient flow and reallocating resources accordingly.

Application of performance principles

In modern healthcare, management control tools have expanded beyond the Balanced Scorecard to include a variety of performance measurement systems. One key system is dashboards. Arah et al. (2006) note that KPIs are now tailored to specific healthcare outcomes, such as patient safety, infection rates, and readmission rates. This type of information allows departments to improve their clinical operations and, ultimately, the care that patients receive.

Additionally, benchmarking has emerged as a critical tool for healthcare institutions. By comparing their performance against industry standards or their peers, healthcare providers using benchmarking can identify areas for improvement and set performance thresholds (Hoque, 2014). Leatherman and Sutherland (2003) argue that benchmarking is particularly effective in driving continuous improvement in healthcare, as it encourages institutions to adopt best practices from other sectors and strive for greater performance.

3. Strategic role of management control in healthcare organizations

In healthcare institutions, management control plays a critical role that affects both strategic decision making and how efficient or productive the organization is.Suppose an organization is as varied and rapidly changing as healthcare. To sustain a structure that marries sound financial principles with ready compassion and care for patients in terms of quality of care as well as also meets all necessary regulations; how could this not be entirely thanks management control systems touching manager's daily work? Otley (1999) points out that both to monitor an overall financial performance as well as all CU activities are consistent with organizations strategic objectives comprises the role of management control systems. This alignment is critical for healthcare organizations to offer high quality care that is still financially viable.

In healthcare settings, strategic choices typically involve a tradeoff between different objectives (e.g., improving patient outcomes while keeping cost levels down). For Abernethy and Stoelwinder (1991), management control systems in the health care industry help managers to integrate clinical and administrative processes thus forming a more unified strategy. For example, tools such as the Balanced Scorecard (BSC) enables health care organizations to track many dimensions of performance financial one, patient satisfaction one, how internal processes

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are carried out and learning and growth rate (Kaplan & Norton, 1992). By capturing data along these lines, management control systems allow healthcare leaders to make informed strategic choices that take into account the financial side (such as profits or losses) as well as all other non monetary aspects of organizational performance.

For healthcare organizations to reach their long term strategic goals, successful management control is instrumental. Effective MCS provide a link between the strategic goals of an organization and its daily operations, as Malmi and Brown (2008) remind us. And how critically this can be important in healthcare: if operational efficiency is lost then so too will quality health care go down with that ship. Leaders in healthcare cannot just use common sense, either drives will to ensure that their decisions are based on statistically significant data and this approach has a beneficial impact on efficiency as well as patient outcomes. For instance, a hospital that seeks to reduce readmission rates might deploy management control techniques in the identification of wasteful steps in patient discharge processing and develop targeted steps to address them (Naranjo Gil, 2009).Management control systems further health organizations' strategic planning capabilities by allowing them to scan their internal conditions and scan the challenges outside. Simons (1995) suggests that MCS play a diagnostic role in that they provide managers with information enabling them at any time to judge whether or where their strategies may need alteration.

In resource constrained environments like healthcare, where tight budgets mean that demand for services will always outstrip supply and effective resource allocation depends on accurate information from others (Anthony and Govindarajan 2007). Management control systems enable healthcare managers to monitor the use of resources closely and to locate areas where streamlining might occur. For example, with performance dashboards it is possible to track in real time how personnel are being used and patient flow patterns, giving managers the means also to optimize staffing levels, shore up weak points in delivery of care (Grigoroudis et al., 2012).

Management control systems enable healthcare organizations to continuously improve their processes by linking their future financial success and performance metrics of the present.Internal control tools that hospitals may use include activity based costing (ABC) and process improvement capabilities. By looking at provider practices and identifying opportunities to make changes, managers can reduce the cost of their patients' care.Because this way of accounting for activities allows hospitals to more accurately allocate costs to particular services or departments, ABC can highlight areas where resources are being squandered or

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wasted. (Kaplan & Anderson, 2004) Such analysis is essential for healthcare organizations seeking to maximize their cost effectiveness without undermining the quality of patient care.

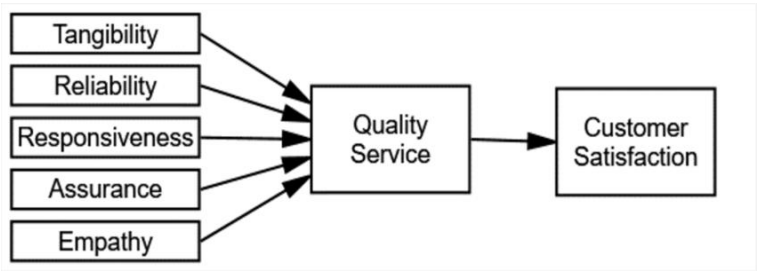
II. Quality of healthcare services: theoretical and practical approaches

1. Definition and dimensions of quality in healthcare services

One popular model used to measure healthcare quality is the SERVQUAL model. It was introduced as an instrument intended for service organizations, but has been adapted for healthcare because its focus on patient perception. The model estimates quality by measuring the gap between patient expectations and actual services received across five key dimensions: tangibles, reliability, responsiveness, assurance and empathy. These dimensions cover a wide range of patient experience, from the physical environment of a healthcare facility (tangibles) to professionalism and compassion that healthcare providers exhibit (empathy).

The model is especially suitable for the medical setting where patient expectations can vary a lot depending on individual needs, cultural differences and what type of medical services are provided. Despite its widespread use, SERVQUAL has attracted criticism for its overly narrow focus on patients knowing. It came under pressure to incorporate more objective indicators of health care quality.

Figure 1:The SERVQUAL Model



Source: Adopted from Parasuraman et al. (1988)

Leading the way in this effort is the Donabedian Model, Donabedian (1980) has described this model as a comprehensive scheme for measuring health services which divides quality into three interrelated components: structure, process and outcome.

Referring to the settings where medical care occurs (and includes things like hospitals), this third quality dimension is called ‘structure of delivery.’ For example, in healthcare what kind would be: ‘Is there enough staff on duty?,’ ‘What’s the quality and modern level of equipment and buildings used in providing patient care and therapy? ’ Process actually refers to how healthcare is delivered: diagnosis, treatment, and patient follow up. It is concerned with whether clinical practice guidelines were followed or not (i.e., so that only the safe steps were taken).

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Finally, the results of healthcare; to take one example, patient recovery rates and overall health improvement can be measured by others than medical experts alone. And in this regard at least donabedians models tends toward a more complete patient oriented view of quality care. These theoretical models point out the need to assess healthcare services along various dimensions. One of the most important dimensions is safety of patients. This means avoiding unnecessary discomfort and suffering to the patients in order to carry on providing care. Vincent et al(2001) defines patient safety as the treatment of errors or adverse effects and therefore safety is an essential part of good quality. In recent years patient safety has become a major focus for healthcare organizations around the world as reports of medical errors and preventable harm in hospitals grow. Tools like incident reporting systems, clinical audits checklists for safety have been widely implemented to recognize risks and promote better patient safety in healthcare systems everywhere" (Pronovost et al., 2006).

Another important factor is " accessibility ", which means how easy it is for patients to get health care services in other words whether they can get what they need when the need arises. According to Gulliford et al. (2002), Accessibility includes not just physical closeness to healthcare sites but also the range of services available, cost and absence from barriers like waiting times. In numerous healthcare systems, missing from low–income to middle income countries, access to care is hampered by the lack of resources, inadequate infrastructure and social inequalities. Improving accessibility is vital in making sure that everyone, no matter what his or her circumstances may be, receives treatment when needed and without unnecessary delay.

"Productivity" makes for the third quality measure, It means how far resources can be extended to provide the most effective care. Porter and Teisberg (2006) claim that productivity in health services is not just about lowering costs but improving value for patients as well an aspect known as quality. To do this, hospitals and clinics need more effective use of assets by eliminating waste and simplifying processes; they also have to cut out inessential tests or treatments across the board. However productivity is deeply connected with organization's performance and sustainable development objectives, for hospitals must balance the imperatives for patient care against their economic realities of working within resource poor environments.

2. Quality indicators and measurement methods

To evaluate and enhance medical treatment, quality indicators and methods for assessing patient satisfaction are vital conventional fields of quality assurance in localization. The measurement

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of these performance indicators not only gives quantifiable results that can be compared across institutions, but it also provides an organized approach to evaluating a health system in terms of outcomes for patients and system efficiencies overall. The management task for these measures is to help managers at medical institutions integrate them into their management systems in order to ensure truly high quality care. For example, patient satisfaction, waiting times and readmit rates are three key performance indicators. They offer different perspectives on healthcare performance satisfaction rates with care dimension; information about how long it takes to be seen after returning home from hospital etc., along with readmits rates shaped by factors such as health policies or location that affect infectious disease rates which have changed in recent years. However, interpreting and linking these indicators requires an understanding of the differences between quantitative as well as quality measures of healthcare performance. Another area where patient satisfaction functions as a health care quality indicator is in the medical sector. This metric reflects how patients perceive the care and experience they are given by physicians. In the words of Crow et al. (2002), patient satisfaction includes a host of factors that embrace various elements in which healthcare occurs: quality communication with medical staff personnel and not or how well mixed hospital nurses are, personal services offer to customers is also related solely on tip. High rates of patient satisfaction with their care highly correlate to adherence to his healing program, low incidence malpractice claims and good patient outcomes. On the other hand, Bleich et al. (2009) insist that because patient expectation can be subjective and people's own sense of information is always influenced by personal experience, this makes it difficult for healthcare providers to completely control. Thus while patient satisfaction remains an important measure for assessing medical quality, it must be combined with more objective indicators in order to offer a comprehensive evaluation.

Another telling sign of health care quality: how long patients have to wait for services, whether in an emergency department or scheduled surgery. Rones ( ) and long delaysunderstand whileincreasing system stress patience, therapies resultingIn the words of Ronen and Pliskin (2006), "Long delays are a bane of many healthcare admissions; they result in deteriorating patient conditions and lower satisfaction ratings for both patients and staff." In addition, waiting times as a quantitative index of system efficiency and capacity Research has shown that long waiting times are associated with patients' negative perceptions of treatment quality and heightened anxiety, particularly in emergency rooms.Many medical institutions lacking long teamwork have moved to streamlined organizational procedures. Especially inefficiencies in patient flow are found and removed by these attempts, resulting in less waiting times and better

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service for patients. Be clear though that minimisation of waiting time should not compromise the level of care provided. Focusing too much on being fast over how completely treatment is rendered may indeed erode care quality, something that could well lead to negative patient outcomes.

Another major indicator of healthcare quality are readmission rates, which reflect the percentage of discharged patients who are re hospitalized within a set time period typically 30 days. Readmission rates function as an index of the quality of care given during an initial hospital stay. A high readmission rate may mean one thing: poor discharge planning; little or no patient instruction or follow up care. According to Jencks et al. (2009), nearly one in five Medicare participants in the United States is readmitted to hospital within 30 days at an enormous cost to the health care system. Reducing readmission rates is a major focus of health care reform in this country today and includes such policies as the Hospital Readmissions Reduction Program (HRRP), which penalizes hospitals for high readmissions Unless indicated, the many factors leading to a patient's being readmitted are complex and multi faceted. Socio economic conditions, the patient's comorbidities, and external support systems all contribute to whether he or she will be readmitted. Therefore, while readmission rates provide important information on quality of care, they should be interpreted carefully and used in combination with other indicators if a total picture of healthcare performance is to emerge. An important consideration in defining healthcare quality as it relates to measurements, data collection, and the application of that data in assessing services is the distinction between quantitative and qualitative measures. Quantitative measures, such as waiting times and readmission rates, provide hard, verifiable numbers that can be used over time. (Donabedian; 2005).

3. Factors influencing the quality of healthcare services

Multiple factors can influence the quality of healthcare services, including human resources, internal processes, and continuous skill development. Healthcare has been greatly influenced by The availability, skills and motivation of health care professionals directly determines the quality of healthcare given. For a sliding function to have high output on either end demanding system, we Effective healthcare systems require well trained and adequate staffed teams. These enterprises need their work done right during an emergency because lack of efficient personnel leads to delays in treatment, wasted resources and dissatisfying patient experiences.

In his work Mosadeghrad (2014) identifies several examples Factors this author introduces include human resources, technology and internal processes. He stresses that medical staff must maintain high levels of professionalism and competence in order to ensure accurate diagnoses,

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effective treatment. In casual conversation "the nature of quality" is also very important. Internal process quality, patient management systems, distribution of resources and communication protocol are all key. If processes are inefficient, then there will be care path congestions the patient is unhappy with its service of delivery, problems slip through the cracks. In systems science: "essence" indicates something like

Interdisciplinary teamwork is another essential element in improving healthcare quality. With their research Nancarrow et al. (2013) produce ten principles for good interdisciplinary teamwork. Their research has shown that well functioning teams can enhance patient outcomes by promoting partnerships between various disciplines. In this way patients' needs are addressed as a whole, leaving no gaps in treatment and overall operational efficiency is increased.

Continuing professional development is important for maintaining and upgrading the quality of healthcare. In their opinion Frenk et al. (2010) believe that health systems should allocate sufficient funds to the continuous education and technical training of health professional s. In their view this will prepare a workforce capable of meeting dramatically increased demands resulting from global health reform. They cast doubt on the idea as skills cannot be both functional and untainted. Not only does continuous skill development ensure that healthcare workers maintain their status, but it also improves their ability to offer patient centered care.

III. Integration of management control and service quality in healthcare institutions

1. Impact of management control on quality of care

The impact on healthcare quality of management control is well documented. Effective management systems can improve key quality indicators such as error reduction, patient satisfaction and resource management. By using these systems, healthcare institutions can align their strategic goals with the operational process of service and ultimately improve service delivery in general. Anthony and Govindarajan (2007) thought manifestation control systems provides a framework which hospital administrators use to focus on results, optimize processes to improve costs and quality, ensure that sufficient care is taken in executing those standards of quality. For both environmental planning purposes (sustainability) and the provision of excellent patient service This concept becomes important. One case in which management control systems positively affect healthcare is the reduction of medical errors. Doolin said in his work, "Turning kicked cats into walking cats" (2004) that management control systems can reduce errors in medical procedures by having mechanisms such as performance tracking and regular audits for accountability checks. Such processes provide healthcare managers with real time feedback about clinical practices in order that any possible fault may be put right before it

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impacts upon patient care. Hospitals equipped with complete and mature MCS suffer less from medication errors and show better patient safety indexes. Health care providers can discern where irregularities exist in treatment protocols with such information readily available to them at all times, hence making immediate corrections The field of MCS also has a beneficial impact on customer satisfaction. Organizations that have already implemented MCS can continually improve customer satisfaction through efficient delivery of timely care, resource allocation effective and good communication between staff and patients. The use of methods such as a balanced scorecard for healthcare managers enables a more extensive approach to monitoring such as patient satisfaction (Naranjo Gil and Hartmann 2007). As a result, organizations can head off the complaints of their patients before they arise and provide better services.

2. Management tools and continuous improvement of healthcare services

Management tools play a key role in the ongoing improvement of healthcare services that gives the strategy and policy to run such a system really support. One of the widely accepted tools for that purpose is the Balanced Scorecard(BSC) . Developed by Kaplan and Norton (1992) , it aims to provide comprehensive performance measurement by balancing financial and non financial metrics. In the healthcare industry, the BSC not only addresses financial sustainability, but also puts equal emphasis on patient satisfaction, internal management systems and continuous learning. By combining these viewpoints with its financial competitiveness orientation the BSC ensures that health care operators can achieve their dual target of making a profit and providing fair quality services.

The BSC's framework is especially significant in health care because it deals with the complexity of delivering patient care, which involves balancing quality with cost effectiveness. The BSC, as shown in Inamdar and Kaplan (2002) , has been successfully employed at hospitals to improve patient outcomes without losing financial control.

A second critical ingredient in the continuous improvement of health care is for health care organizations to use their own quality specific performance measures (KPIs). KPIs are indices that healthcare providers implement in key aspects of their performance like patient safety, disease outbreaks, waiting times for treatment and outcomes from treatment. Taking Arah et al. (2006) as an example, monitoring KPIs allows health care managers to identify inefficiencies in their own internal process and take remedial action. For instance, keeping track of the rates of hospital acquired infections can result in stricter hygiene rules being introduced one beneficial side effect being that it directly improves patient safety.

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What's more, quality specific KPIs make benchmarking and continuous monitoring essential for continuous improvement. As Behn (2003) points out, real time monitoring through dashboards allows healthcare managers to make rapid adjustments in operational process, preventing delays and bottlenecks in patient care.

3. Challenges and limitations of integration

Healthcare institutions may encounter many difficulties when trying to use management control tools for quality improvement. The most frequently mentioned obstacles by Krasner include resistance to change, high costs, and getting suitable performance indicators for use in the health care sector. Burns and Scapens (2000) argue that resistance to change is often grounded in organizational culture, especially in healthcare where doctors may view management control tools as burdens rather than aids for patient care. These systems can also undermine the autonomy of medical professionals and add to their workload, which is why medical staff may resist them.

As Abernethy and Chua (1996) point out, healthcare professionals often think that management control tools are too bureaucratic, thereby view them with skepticism and reluctance to accept those. For example management accounting systems can not only encourage effective management but also develop a culture among nurses of understanding and acting on patient needs rather than avoiding them because they are too much trouble to report properly.

A further major hurdle lies in the high cost of such sophisticated management control systems. Kaplan and Norton (1996) stress that technical support, training and continued service for tools like the Balanced Scorecard require a company's investment in these disciplines. These costs may be beyond the financial capability of smaller healthcare establishments especially those with limited budgets to begin with. as well the upkeep of data collection mechanisms on an ongoing basis and educating staff involved all add up and together they become an obstacle for healthcare organizations to gain full traction from using this tool.

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Conclusion

Finally, the effective application of control tools in healthcare institutions can improve service quality and efficiency. Despite such challenges as opposition, high costs of adoption and the difficulty of adapting performance indicators to suit a medical setting, those obstacles are not insuperable. Overcoming resistance to change calls for active participation and engagement on the part of healthcare workers, so as to ensure a system that accords with clinical practices is established and seen as beneficial rather than an additional burden.

Stepped implementation is one way to mitigate the high economic burden of this transformation: starting with simpler measures, institutions can later expand and ease into the innovative system at a bearable pace. In addition to that, setting specific performance indicators to take account of healthcare focussed outcomes such as patient safety and care quality is important if these tools are to stay relevant and effective in the future.

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References

- Abernethy, M. A., & Chua, W. F. (1996). A field study of control system "redesign": The impact of institutional processes on strategic choice. Contemporary Accounting Research, 13 (2), 569 606.
- Abernethy, M. A., & Stoelwinder, J. U. (1991). Budget use, task uncertainty, system goal orientation and subunit performance: A test of the "fit" hypothesis in not for profit hospitals. Accounting, Organizations and Society, 16 (2), 105 120.
- Anthony, R. N. (1965). Planning and control systems: A framework for analysis . Harvard Business School Press.
- Chenhall, R. H. (2003). Management control systems design within its organizational context: Findings from contingency based research and directions for the future. Accounting, Organizations and Society, 28 (2 3), 127 168.
- Hopper, T., Storey, J., & Willmott, H. (1987). Accounting for accounting: Towards the development of a dialectical view. Accounting, Organizations and Society, 12 (5), 437 456.
- Kaplan, R. S., & Norton, D. P. (1992). The balanced scorecard: Measures that drive performance. Harvard Business Review, 70 (1), 71 79.
- Modell, S. (2004). Performance measurement myths in the public sector: A research note. Financial Accountability & Management, 20 (1), 39 55.
- Arah, O. A., Klazinga, N. S., Delnoij, D. M., ten Asbroek, A. H., & Custers, T. (2006). Conceptual frameworks for health systems performance: A quest for effectiveness, quality, and improvement. International Journal for Quality in Health Care, 15 (5), 377 398.
- Atkinson, A. A., Waterhouse, J. H., & Wells, R. B. (1997). A stakeholder approach to strategic performance measurement. Sloan Management Review, 38 (3), 25 37.
- Behn, R. D. (2003). Why measure performance? Different purposes require different measures. Public Administration Review, 63 (5), 586 606.
- Grigoroudis, E., Orfanoudaki, E., & Zopounidis, C. (2012). Strategic performance measurement in healthcare organizations: A multiple criteria approach based on balanced scorecard. Omega, 40 (1), 104 119.

African Scientific Journal
ISSN : 2658-9311
Vol : 03, Numéro 31 Aout 2025

- Hoque, Z. (2014). 20 years of studies on the balanced scorecard: Trends, accomplishments, gaps, and opportunities for future research. The British Accounting Review, 46 (1), 33 59.
- Inamdar, N., Kaplan, R. S., & Bower, M. (2002). Applying the balanced scorecard in healthcare provider organizations. Journal of Healthcare Management, 47 (3), 179 195.
- Kaplan, R. S., & Norton, D. P. (1996). Linking the balanced scorecard to strategy. California Management Review, 39 (1), 53 79.
- Leatherman, S., & Sutherland, K. (2003). The quest for quality: Refining the NHS reforms. Nuffield Trust Report .
- Mintzberg, H. (1997). The structuring of organizations . Prentice Hall .
- Palvannan, R. K., & Teow, K. L. (2012). Queueing for healthcare. Journal of Medical Systems, 36 (2), 541 547.
- Zelman, W. N., Pink, G. H., & Matthias, C. B. (2003). Use of the balanced scorecard in health care. Journal of Health Care Finance, 29 (4), 1 16.
- Abernethy, M. A., & Chua, W. F. (1996). A field study of control system "redesign": The impact of institutional processes on strategic choice. Contemporary Accounting Research, 13 (2), 569 606.
- Abernethy, M. A., & Stoelwinder, J. U. (1991). Budget use, task uncertainty, system goal orientation and subunit performance: A test of the "fit" hypothesis in not for profit hospitals. Accounting, Organizations and Society, 16 (2), 105 120.
- Anthony, R. N., & Govindarajan, V. (2007). Management control systems . McGraw Hill/Irwin.
- Burns, J., & Scapens, R. W. (2000). Conceptualizing management accounting change: An institutional framework. Management Accounting Research, 11 (1), 3 25.
- Donabedian, A. (1980). Explorations in quality assessment and monitoring: The definition of quality and approaches to its assessment . Health Administration Press.
- Gulliford, M., Figueroa Munoz, J., Morgan, M., Hughes, D., Gibson, B., Beech, R., & Hudson, M. (2002). What does 'access to health care' mean? Journal of Health Services Research & Policy, 7 (3), 186 188.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. Journal of Marketing, 49 (4), 41 50.

African Scientific Journal
ISSN : 2658-9311
Vol : 03, Numéro 31 Aout 2025

- Porter, M. E., & Teisberg, E. O. (2006). Redefining health care: Creating value based competition on results . Harvard Business School Press.
- Pronovost, P., Needham, D., Berenholtz, S., Sinopoli, D., Chu, H., Cosgrove, S., & Goeschel, C. (2006). An intervention to decrease catheter related bloodstream infections in the ICU. New England Journal of Medicine, 355 (26), 2725 2732.
- Vincent, C., Neale, G., & Woloshynowych, M. (2001). Adverse events in British hospitals: Preliminary retrospective record review. BMJ, 322 (7285), 517 519.
- Ware, J. E., Snyder, M. K., Wright, W. R., & Davies, A. R. (1983). Defining and measuring patient satisfaction with medical care. Evaluation and Program Planning, 6 (3 4), 247 263.
- Bleich, S. N., Özaltin, E., & Murray, C. J. (2009). How does satisfaction with the healthcare system relate to patient experience? Bulletin of the World Health Organization, 87 (4), 271.
- Coulter, A., Fitzpatrick, R., & Cornwell, J. (2009). Measures of patients' experience in hospital: Purpose, methods and uses. The King's Fund .
- Crow, R., Gage, H., Hampson, S., Hart, J., Kimber, A., Storey, L., & Thomas, H. (2002). The measurement of satisfaction with healthcare: Implications for practice from a systematic review of the literature. Health Technology Assessment, 6 (32), 1 244.
- Donabedian, A. (2005). Evaluating the quality of medical care. The Milbank Quarterly, 83 (4), 691 729.
- Jencks, S. F., Williams, M. V., & Coleman, E. A. (2009). Rehospitalizations among patients in the Medicare fee for service program. New England Journal of Medicine, 360 (14), 1418 1428.
- Ronen, B., & Pliskin, J. S. (2006). Focused operations management for health services organizations. Jossey Bass.
- Dubois, C. A., Nolte, E., & McKee, M. (2006). Human resources for health in Europe. World Health Organization.
- Frenk, J., Chen, L., Bhutta, Z. A., Cohen, J., Crisp, N., Evans, T., & Fineberg, H. (2010). Health professionals for a new century: Transforming education to strengthen health systems in an interdependent world. The Lancet, 376 (9756), 1923 1958.
- Mosadeghrad, A. M. (2014). Factors influencing healthcare service quality. International Journal of Health Policy and Management, 3 (2), 77 89.

African Scientific Journal
ISSN : 2658-9311
Vol : 03, Numéro 31 Aout 2025

- Nancarrow, S. A., Booth, A., Ariss, S., Smith, T., Enderby, P., & Roots, A. (2013). Ten principles of good interdisciplinary team work. Human Resources for Health, 11 (1), 19.
- Anthony, R. N., & Govindarajan, V. (2007). Management control systems . McGraw Hill/Irwin.
- Doolin, B. (2004). Power and resistance in the implementation of a medical management information system. Information Systems Journal, 14 (4), 343 362.
- Li, L., & Benton, W. C. (2003). Hospital capacity management decisions: Emphasis on cost control and quality enhancement. European Journal of Operational Research, 174 (2), 1668 1682.
- Naranjo Gil, D., & Hartmann, F. (2007). How CEOs use management information systems for strategy implementation in hospitals. Health Policy, 81 (1), 29 41.
- Arah, O. A., Klazinga, N. S., Delnoij, D. M., ten Asbroek, A. H., & Custers, T. (2003). Conceptual frameworks for health systems performance: A quest for effectiveness, quality, and improvement. International Journal for Quality in Health Care, 18 (5), 377 398.
- Behn, R. D. (2003). Why measure performance? Different purposes require different measures. Public Administration Review, 63 (5), 586 606.
- Inamdar, N., & Kaplan, R. S. (2002). Applying the Balanced Scorecard in healthcare provider organizations. Journal of Healthcare Management, 47 (3), 179 195.
- Kaplan, R. S., & Norton, D. P. (1992). The Balanced Scorecard: Measures that drive performance. Harvard Business Review, 70 (1), 71 79.
- Abernethy, M. A., & Chua, W. F. (1996). A field study of control system "redesign": The impact of institutional processes on strategic choice. Contemporary Accounting Research, 13 (2), 569 606.
- Bourne, M., Neely, A., Mills, J., & Platts, K. (2000). Designing, implementing and updating performance measurement systems. International Journal of Operations & Production Management, 20 (7), 754 771.
- Burns, J., & Scapens, R. W. (2000). Conceptualizing management accounting change: An institutional framework. Management Accounting Research, 11 (1), 3 25.
- Inamdar, N., Kaplan, R. S., & Bower, M. (2002). Applying the balanced scorecard in healthcare provider organizations. Journal of Healthcare Management, 47 (3), 179 195.

African Scientific Journal
ISSN : 2658-9311
Vol : 03, Numéro 31 Aout 2025

- Kaplan, R. S., & Norton, D. P. (1996). The balanced scorecard: Translating strategy into action. Harvard Business Press .
- Modell, S. (2004). Performance measurement myths in the public sector: A research note. Financial Accountability & Management, 20 (1), 39 55.