
Unlocking What we Know: Exploring the Identification, Application, and Future Directions of IT Best Practices

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Abstract:

Purpose: This study investigates the concept of "best practices" in IT management, strategy, and digital transformation, aiming to explore their identification, application, and future directions. The research bridges theoretical insights with practical applications.

Design/Methodology/Approach: A comprehensive review of literature and 510 online business repositories was conducted using grounded theory and thematic analysis methodologies. Machine learning tools, such as Leximancer, were employed to analyze and map key themes and relationships.

Findings: The study highlights the multidimensional nature of best practices, emphasizing their role in improving business operations and supporting organizational goals. Major themes include management, project practices, and their application in digital transformation contexts. Findings reveal that while 30 % of practices focus on tools and methodologies, 60 % emphasize broadly defined skills. However, limited empirical validation hinders the development of comprehensive frameworks.

Practical Implications: The study underscores the importance of contextual adaptability in the successful implementation of best practices and the difference between the areas analyzed by the academia and the business representatives.

Originality/Value: This research provides an integrated perspective on best practices, combining theoretical exploration with real-world applications. By employing machine learning for thematic analysis and drawing from diverse repositories, the study advances understanding of the practical implications and challenges associated with best practices in IT management and digital transformation.

Keywords: Best practices, IT management, IT standards, information technology, organizational practices, good practices life cycle.

JEL Codes: D83, M15, O32.

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1. Introduction

The concept of "best practices" has gained significant attention in academic and business contexts. The ambiguity is further compounded by its frequent and often arbitrary usage in various domains, making it a complex subject of study. Scholars have proposed multiple definitions, tracing the term's origin to diverse fields and thinkers and illustrating the need for more agreement on its foundational roots.

An initial contribution to this discourse was the work of Carla O'Dell and Jackson Grayson in their seminal article *If Only We Knew What We Know: Identification and Transfer of Internal Best Practices* from 1998. O'Dell and Grayson emphasized the potential of best practices within organizations, highlighting how they often remained underutilized due to barriers in identification and implementation. Building on these perspectives, this paper aims to explore the significance, evolution and application of "best practices" through a structured comparison of existing literature and real-world business data.

The focus is on understanding the themes and frameworks that underpin the concept while addressing gaps in empirical validation and theoretical coherence. A review of scholarly literature and online repositories provides a dual perspective, integrating theoretical insights with practical examples.

2. Literature Review

The concept of "best practices" is widely discussed in the literature, yet there is still no consensus on its precise definition or interpretation. This ambiguity is further exacerbated by the frequent and often arbitrary use of the term in business contexts, which complicates academic research.

Moreover, scholars differ in their opinions on who should be recognized as the "founding figure" of the best practices concept. For example, S. Bretschneider cited Nobel laureate H. Simon and his work *The Sciences of the Artificial* (1963) as a foundational reference (Bretschneider *et al.*, 2004). Similarly, S. Dani attributed concept roots to C. Bogan and M. English, authors of *Benchmarking for Best Practices: Winning Through Innovative Adaptation* from 1994 (Dani *et al.*, 2006).

G. Fragidis, on the other hand, highlighted the work of C. O'Dell and J. Grayson in *If Only We Knew What We Know* (Fragidis and Tarabanis, 2006). In contrast, J. Osburn traced the concept back to F.W. Taylor and his landmark book *The Principles of Scientific Management* (1911) (Osburn *et al.*, 2011).

In this work, Taylor introduced the term "best way," applying it to various aspects of work processes. This terminology was employed to characterize the most efficient strategies for activities undertaken by employees (Taylor, 1919, p. 106), the formulation of job-specific directives (1919, p. 126), methodologies for task

execution (1919, p. 128), and protocols for training (1919, p. 130). In this context, a "best practice" was understood as the optimal means of achieving desired outcomes.

H. Kerzner later highlighted effectiveness and replicability as typical features of best practices by helping organizations achieve competitive advantage and preventing or resolving problems when they occur (Kerzner, 2010).

E. Adler and V. Pouliot advocated for analysing best practices through the lens of the processes in which they are applied. They argued that practices exhibit regularity across time and space and are subject to similar interpretations regarding their implementation, viewing practices more as skills than as norms or ideas (Adler and Pouliot, 2011).

G. Fragidis and K. Tarabanis cautioned that labelling a practice as "best" inherently acknowledges its relativity and context dependence. They contended that the term typically refers to practices that "tend to" produce better – though not necessarily the best – results (Fragidis and Tarabanis, 2006). Other researchers also underscored the relative and situational nature of the concept.

They argued that a "best" practice may not necessarily outperform a "good" or "better" practice but may instead represent a more promising or novel approach (Bretschneider *et al.*, 2004; Jarrar and Zairi, 2000; Osburn *et al.*, 2011) or simply offer more reliable and predictable outcomes, even if they do not provide an unequivocal advantage (Kerzner, 2010). E. Bardach shared a similar perspective, lamenting not only the lack of sufficient evidence supporting the superiority of specific practices but also the tendency of the literature to neglect qualitative strengths while seeking empirical validation (Bardach, 1998).

Moreover, the term "best" is akin to a moving target, as its meaning often depends on specific contexts (Jarrar and Zairi, 2000; O'Dell and Grayson, 1998). J. Osburn called for an evidence-based assessment of best practices rather than relying on their popularity (Osburn *et al.*, 2011).

It fostered a tendency to equate terms such as "good" and "best" or to replace them with seemingly equivalent expressions such as "promising" (Bendixsen and de Guchteneire, 2003), "success stories" (Fragidis and Tarabanis, 2006), or "proven" (Jarrar and Zairi, 2000; Kerzner, 2010).

In summary, the literature highlighted the multidimensional nature of best practices from the very beginning, emphasizing the evolution of their definition, their application, and adaptability across organizational contexts. This study builds on these insights by systematically investigating the identification and application of best practices. As detailed in the following section, these insights guide the methodology used to investigate best practices.

3. Research Methodology

The research began with a comprehensive review of the relevant literature, following grounded theory methodologies and associated approaches for identifying and selecting source materials (Creswell and Guetterman, 2019; Wolfswinkel *et al.*, 2013). The sources reviewed included widely recognized academic databases such as Academic Search Ultimate, Business Source Ultimate, Directory of Open Access Journals, EBSCOhost, Emerald Journals, JSTOR, SAGE Journals, ScienceDirect (Elsevier), SCOPUS, SpringerLink, Taylor & Francis, and Wiley Online Library.

Given the nature of the topic, the fields of management science and information systems were selected as the focus areas (Engerer, 2019). Related fields, like business management and information technology, were included when explicit classifications were absent. As a result, 169 articles were initially identified.

The articles underwent further evaluation through abstract reviews and an in-depth screening of their content against inclusion and exclusion criteria. Ultimately, 87 remaining articles were selected for detailed analysis to explore the presence of various concepts, leading themes, and interrelations.

Recognizing the importance of integrating theoretical and practical knowledge, the research also included practical insights (online repositories such as blogs, consulting firm websites, IT management community platforms and other online articles regarding best practices). A total of 510 repositories were examined, with 2,019 references to IT best practices. In both cases, machine learning techniques were used to explore themes and correlations.

Specifically, the Leximancer software was employed, which enabled thematic and relational exploration, data modeling, and indexing (Leximancer, 2021; Smith and Humphreys, 2006). The findings underscored the practical focus of the topics discussed in these repositories. Notably, no single dominant theme emerged; instead, topics such as *Management*, *Practices*, and *Projects* held comparable importance.

Content from the repositories also situated best practices within the broader contexts of *Management* or *Project Management*. Furthermore, the flexibility and applicability of these practices were consistently emphasized (*Usage*), underscoring their relevance to practical business challenges and their adaptability across diverse organizational contexts.

4. Research Results and Discussion

The literature research was based on the following inclusion criteria: publications addressing best practices in one of the following areas – IT management, IT strategy, information systems or IT technologies; publications presenting frameworks for the functioning of best practices, as well as their challenges and limitations (a

multifaceted perspective), publications related to IT best practices that based on empirical data or provided a review of theories and viewpoints in this domain, publications proposing systemic solutions (comprehensive recommendations, structural proposals, etc.), publications with full access and peer-reviewed, released in 2004 or later, in English, German or Polish.

Excluded were publications addressing best practices from fields other than IT, publications that merely list or describe individual IT best practices and standards without offering a broader perspective and publications presenting only opinions or commentary without empirical or theoretical support. Table 1 presents the research results step-by-step.

Table 1. *Research results for literature review*

Search criteria (as a subject)	Total articles found
[good practice or best practice or best practices or guidelines or evidence-based practice]	676,263
AND [practice or application or use]	418,901
AND [information technology or information systems]	14,749
AND [framework or model or theory or approach or tool]	2,598
Applying inclusion and exclusion criteria (- 2,375 articles)	223
Removing articles based on abstracts (- 74 articles)	149
Removing articles based on full text analysis (- 62 articles)	87

Source: *Author's compilation.*

The research regarding business repositories was conducted based on the inclusion criteria: repositories focused on best practices and IT standards in one of the following areas: IT management, IT strategy, IT project management, information systems, or IT technologies. repositories presenting frameworks for operating best practices, challenges and limitations (a multidimensional perspective), repositories related to IT best practices and based on empirical data or providing a review of theories and views in this field and repositories proposing systemic solutions (comprehensive recommendations, structural proposals, etc.).

Excluded were repositories focusing on best practices from other areas, i.e. those concentrating on best practices and standards without referring to IT management, IT strategy, IT project management, information systems, or IT technologies, repositories limited to listing and describing individual IT best practices and standards, repositories presenting only opinions or comments and repositories serving as advertisements for products (i.e., IT applications for managing processes or specific areas).

The search terms were based on keywords previously used to review relevant

Consequently, the author decided to limit detailed analyses to a maximum of 25 webpages in each case, with each webpage presenting 10 to 17 links to source repositories. The depth of analysis was determined by the volume of search results: 5 pages were analyzed for up to 250 million hits, 5–10 pages for 250–500 million hits, 10–15 pages for 500 million to 1 billion hits, and 15–25 pages for over 1 billion hits.

Figure 1 presents a graphical representation of the analyses conducted in both areas, namely the literature review and the review of online repositories.

For the literature review, two recurring themes, *Processes* and *Practices*, consistently emerged regardless of the level of detail in the analysis. This finding seems to confirm the relevance of the selected literature and highlights the link between process-oriented management and best practices (Gratton and Ghoshal,

2005; Kozlova *et al.*, 2012; Wittig *et al.*, 2017). The dominant theme, *Project*, underscores the literature's focus on best practices in project management, particularly those related to implementing information systems and software development projects (Beck *et al.*, 2009; Besner and Hobbs, 2013; Galinac, 2009; Iamratanakul *et al.*, 2014; Kroll *et al.*, 2013).

Additional themes, such as *Management* and *Work*, highlight the intersection of practices with management styles and their application within organizations as workplaces (Collins, 2016; Latino *et al.*, 2016; Ng, 2011). The theme *Service* emphasizes the orientation of best practices toward processes involving customers or end-users, reflecting their alignment with user-centric approaches (Curry *et al.*, 2021; Kozlova *et al.*, 2012; Yeow *et al.*, 2018).

Similarly, the *Organization* theme focuses on organizational change, extending trends identified in the *Management* theme (Aldossari *et al.*, 2021; Cuentas *et al.*, 2015; da Silva *et al.*, 2018). The themes *Usage* and *Approach* reinforce the applied nature of best practices, emphasizing their practical implementation and flexibility (Beck *et al.*, 2009; Laplante and Costello, 2006; Nokleberg and Hawkes, 2020; Ozdenizci Kose, 2021).

The *Employees* theme highlights the critical role of staff involvement and change management in adopting and maintaining best practices, while the *Benefits* theme draws attention to the advantages of these practices in enhancing management processes (Kastelic and Peer, 2012; Marnewick, 2017). Some themes, such as *Ideas*, lacked sufficient independent relevance and were excluded from further analysis.

The *ITIL* theme, however, reflected the widespread adoption and significant influence of the ITIL framework in IT organization management (Alojail *et al.*, 2012; Kastelic and Peer, 2012). The analysis identified also an IT process management framework COBIT and an enterprise information architecture framework TOGAF.

The importance of *Management*, *Practices*, and *Projects* was found to be similar for business repositories. Discussions in online repositories generally centred on *Management* or *Project* management within this context. A significant focus was placed on the practical implementation and adaptability of proposed solutions (*Use*). Solutions were examined concerning the dynamics between project managers and teams or the challenges faced by *Teams*.

A distinct thematic area addressed *Data* issues, especially data protection and cybersecurity. Preventive measures were also evident in topics related to *Risks* to the projects. Analysis of online repositories indicated that IT-related best practices are mainly referenced in the context of IT project management or IT organization management. They were predominantly portrayed as tools supporting business operations and processes, delivering added value to clients. Some authors provide

general recommendations and guidelines for frameworks like ITIL.

The content analysis revealed that specific techniques, methods, or tools comprised about one-third of references, with the remaining referencing broadly defined skills. Among these, technical skills necessary for operating IT systems or applications were most prominent, followed by conceptual skills. Conceptual skills included management abilities like planning, task coordination, and leadership practices. In social skills, practices promoting teamwork, collaboration, communication and interpersonal interaction were the most prevalent.

5. Conclusions, Proposals, Recommendations

The reviewed literature and practical data sources support the connection between best practices and process-oriented approaches, alongside their broader application in enterprise management. These findings emphasize the applied and actionable nature of best practices across various contexts.

However, the analysis underscored a disunited research direction. Rather than converging on a central framework or theoretical underpinning, existing studies highlight the role of best practices in addressing specific areas such as process management or project management. This may make formulating universally valid models difficult.

The prevalent focus on the benefits and opportunities of implementing best practices suggests a generally positive orientation among researchers. While this optimism underscores the potential of best practices, it also highlights a critical limitation: the frequent absence of empirical validation. Many studies present proposed solutions without adequately substantiating their effectiveness, leaving gaps in evidence-based research.

The findings of this study underscore the multidimensional nature of best practices, revealing their versatility and adaptability across various organizational contexts. Best practices drive efficiency, foster innovation, and achieve strategic objectives. However, it depends on contextual relevance and the organization's ability to integrate these practices into operational processes.

Despite the robust conceptual foundations and widespread acknowledgement of their value, the analysis highlighted significant gaps in empirical validation and the absence of a unified research direction. Existing studies often focus on isolated applications, such as process or project management, without proposing comprehensive frameworks that can bridge theoretical insights and practical implementation. This fragmentation restricts the generalization of findings and hinders the development of universally applicable models.

Another critical observation is the optimistic tone in existing literature, emphasizing

the benefits and opportunities associated with best practices. While this positivity highlights their potential, it also points to a notable limitation: insufficient critical evaluation and empirical evidence to substantiate claims about their effectiveness. Without rigorous testing and validation, the conceptual understanding of best practices remains incomplete.

Building on this, the following recommendations seem to be rationale:

- **Empirical Validation:** Future studies should prioritize empirical testing of best practices to provide robust evidence of their effectiveness and applicability across different contexts.
- **Integration of Frameworks:** Research should bridge the fragmented landscape by developing integrative frameworks encompassing theoretical insights and practical applications.
- **Exploration of Underrepresented Areas:** The underrepresented presence of themes related to specific IT management frameworks, such as COBIT or TOGAF, suggests an opportunity for focused research in these domains.
- **Critical Evaluation of Limitations:** Researchers should balance exploration benefits with a more critical analysis of challenges, risks, and constraints associated with adopting best practices.
- **Contextual Adaptability:** Given the situational nature of best practices, future research should emphasize the importance of contextual adaptability. It examines how best practices can be tailored to different organizational settings, cultures, and industries. Studies should also examine the factors influencing the successful adaptation of best practices, such as leadership or organizational culture.
- **Stakeholder Perspectives:** Best practices often impact various stakeholders, including employees, customers, and suppliers. Future studies should incorporate stakeholder perspectives, especially regarding benefits and challenges associated with best practices. For example, understanding employee perceptions of best practices can shed light on factors that facilitate or hinder their successful adoption.

The insights from this study highlight the potential of best practices when effectively implemented and managed. However, realizing their full potential requires a concerted effort from researchers and practitioners to bridge existing gaps and address limitations.

By prioritizing empirical validation and fostering collaboration across disciplines, the field can evolve toward a more comprehensive and actionable understanding of best practices. Such advancements would enrich academic discourse and empower organizations to harness the full value of best practices in achieving their success.

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