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Perceived benefits of digitalisation for organisations: Evidence from manufacturing, retail, and financial industries in South Africa

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Orientation: Digitalisation presents opportunities and challenges for organisations. However, an organisational pursuit of digitalisation depends on the perceived benefits it offers.

Research purpose: This study examined respondents' perceptions of the benefits of digitalisation for organisations in the manufacturing, retail, and financial industries in South Africa.

Motivation for the study: There is limited empirical research performed on the benefits of digitalisation for organisations across multiple industries in emerging economies such as South Africa.

Research design, approach and method: A combination of non-probability sampling techniques was used to target non-managerial employees and managers from organisations in the finance, retail, and manufacturing industries in South Africa listed on the Johannesburg Stock Exchange, with a total of 111 usable responses received. Quantitative data were collected via a questionnaire and processed using Statistical Package for the Social Sciences version 31. Descriptive statistics, Exploratory Factor Analysis, one-sample *t*-tests, and Analysis of Variance were used to analyse the data.

Main findings: The study delivered a one-factor model, indicating that the respondents had positive perceptions of the benefits of digitalisation for their organisations. The study also revealed significant differences across industries.

Practical/managerial implications: The results reflect a positive mindset towards digitalisation, which contributes to readiness for change within organisations, and demonstrate the need for industry-specific digitalisation strategies.

Contribution/value-add: The findings of this study provide empirical evidence from an emerging economic context and support the Resource-Based View by illustrating that the benefits of digitalisation for organisations depend on industry type and are driven by organisational capabilities.

Keywords: digitalisation; benefits of digitalisation for organisations; South African organisations; retail industry; manufacturing industry; financial industry.

Introduction

The Fourth Industrial Revolution (4IR) and the evolution of technologies have ushered in an unprecedentedly changing business environment. Digitalisation affects all business processes and human life, especially that of customers and employees (Nesindande, Saurombe & Joseph 2024). Largely, digitalisation is embraced for its convenience and ability to improve efficiency, especially in an organisational context. Coronavirus disease 2019 (COVID-19) contributed to changes in perceptions of how organisations could conduct their operations and the possibilities of working remotely in a new world of work (Mofokeng, Ramolobe & Bogopa 2025; Sichoongwe 2023).

Amid this changing landscape, the digitalisation discussion is centred on two distinct perspectives (Parker & Grote 2022). More pessimistic discourse notes the potential demerits of digitalisation, such as human labour displacement, an escalation or de-escalation of the amount of work to be carried out by humans, higher capital investment in digital technologies, and an increase in economic inequality (Parker & Grote 2022). More optimistic discourse is around the

capacity of technology to drive sustainable development in organisations and to embrace new business models (Le Blanc et al. 2024). These positive outcomes were demonstrated during the COVID-19 pandemic period, when the use of digital technologies enabled many businesses to remain operational (Chapano 2022).

Consequently, the evolving digital landscape renders the adoption of digital technologies essential (Kraus et al. 2022). Organisations are pressured to digitalise to attain a competitive advantage in the marketplace by meeting both customer and employee expectations in terms of the digital economy (Parker & Grote 2022). A slow uptake of digital technologies was associated with a deceleration in productivity, as observed by the Organisation for Economic Co-operation and Development (OECD 2024). The OECD found that growth in the information and communication technology industry outpaced that of the broader economy in 28 countries, and that Artificial Intelligence (AI) could boost productivity and scientific progress as well as address climate change. According to the World Economic Forum (WEF 2023), organisations using digital technologies well can respond more quickly to the increasing volatility, uncertainty, complexity and ambiguity of the global marketplace. Organisations with high levels of digitalisation report higher operational efficiency and revenue growth than those who have low levels of digital maturity (OECD 2024). However, concerns about trust, fairness, privacy and safety may detract from the perceived benefits of digitalisation for organisations (OECD 2024).

In developed nations, the use of digital technology enables organisations to improve their performance in several ways. For example, organisations may reduce costs, automate processes, engage customers, or accelerate their innovation more effectively (Deloitte 2023; McKinsey & Company 2023). In addition, through digitalisation, organisations develop dynamic capabilities that help them respond more effectively to rapidly changing business conditions (Teece 2018). Examples of dynamic capabilities include processing data instantaneously, using predictive analytics and having integrated decision-making systems. These capabilities increase organisational ability to respond quickly and strategically (Kraus et al. 2022).

However, in many developing nations, the advantages of digital technology do not accrue uniformly. In particular, while digital technologies increase a firm's ability to compete, an organisation's success will be influenced by other factors, including the extent of the entrepreneurial ecosystem, the country's infrastructure, and whether or not there is enough investment in human capital (United Nations [UN] 2025; United Nations Conference on Trade and Development [UNCTAD] 2021; World Bank 2023). The manufacturing industry in South Africa, for example, continues to face issues such as ageing infrastructure, high energy costs, and limited automation, which impede the adoption of digital technologies (Mthembu 2025; Nzama et al. 2024). On the other hand, digitalisation has flourished in the financial industry because of advancements in fintech, banking applications, and the availability of regulatory measures to support digital financial ecosystems (Hlophe & Mabetha 2025). Retail is still developing in both e-commerce and utilisation of digital marketing techniques, which are shifting the nature of competition (Chapano & Werner 2026). These varying levels of digitalisation in South Africa suggest that the benefits of digitalisation depend on context rather than being broadly shared across industries.

It was projected that within a decade, digitalisation in the finance and manufacturing industries in South Africa would drive industrial and societal growth to R5 trillion in value (World Bank 2019). Furthermore, a review of annual reports in South Africa's retail industry demonstrated that digitalisation increased competitive potential and customer service (Dakora & Rambe 2022), while a study conducted in the financial industry reported higher levels of financial inclusion (Van Niekerk & Phaladi 2021). Nevertheless, despite policy-level emphasis on the 4IR, adoption varies across industries because of infrastructure barriers, a lack of digital skills, and high implementation costs (Burger 2026; Department of Communications and Digital Technologies [DCDT] 2023; Jere & Ngidi 2020). The lack of uniform digitalisation raises the question of whether the perceived benefits of digitalisation for organisations will be universally realised across manufacturing, retail and financial industries.

Although there has been recent growth in international research related to the phenomenon of digitalisation, limited empirical research has been undertaken investigating how perceived benefits of digitalisation for organisations vary across industries, especially in developing nations such as South Africa (Gama, Phahlane & Malungana 2025; Marsh, Vallejos & Spence 2022; Matsepe & Van der Lingen 2022; Sichoongwe 2023). It is believed that digitalisation varies across countries, industries, and firms, which in turn influences perceptions of the level and type of benefits organisations can reap from the use of such digital technologies (Anderton, Botelho & Reimers 2023; Faiz, Le & Masli 2024; World Bank 2023). Therefore, little is known about how digitalisation is experienced and understood by employees and managers in emerging markets such as South Africa.

Therefore, the focus of this study is on determining employees' and managers' perceived benefits of digitalisation for organisations across three industries, namely manufacturing, retail, and finance in South Africa (as a developing nation), and to determine if this perception of benefits varies by industry.

This study contributes to the theoretical debate by examining how digitalisation works in relation to the Resource-Based View (RBV) of organisations. According to the RBV, firms can create competitive advantages by strategically leveraging their valuable, rare, hard-to-replicate and non-substitutable assets (Wright & Ulrich 2017). With respect to digitalisation,

organisations leverage digital technologies, data capabilities, and digitally skilled human capital as important strategic resources that help them achieve results (Vial 2019). By examining the perceived benefits from digitalisation in different industries, the study builds on the RBV by exploring how organisational digital resources are converted into heterogeneous organisation-level benefits as a function of industry context and capability maturity.

Research objectives

The objectives of the study were to:

- Review existing literature on the perceived benefits of digitalisation for organisations.
- Empirically identify the perceived benefits of digitalisation for organisations within the finance, retail, and manufacturing industries in South Africa.
- To empirically determine whether the type of industry influences the perceived benefits of digitalisation for organisations.
- Based on the results, propose strategies for accelerating the benefits of digitalisation within the finance, retail, and manufacturing industries in South Africa.

Literature review

The literature review explores the benefits of digitalisation for organisations. Digitalisation is defined as the use of digital technologies, such as AI, blockchain, robotics, social media, mobile applications, data analytics, and cloud computing in business processes to improve organisational performance (Chapano 2022; Chaushi, Ismaili & Chaushi 2024). In this study, the term *digitalisation* will be used interchangeably with phrases such as *adoption* and *implementation of digital technologies*. Similarly, the terms '*value*' and '*benefits*' are used interchangeably.

Theoretical framework

The RBV is widely accepted as important for analysing an organisation aiming to achieve a competitive advantage. Therefore, RBV theory is used in this study to gain insight into how digital technologies can contribute to a sustained competitive advantage for an organisation. The RBV, conceptualised by Wernerfelt (1984) and Penrose (1959), suggests that devising and using valuable, rare, inimitable, and non-substitutable resources gives a competitive advantage to the business (Wright & Ulrich 2017), placing it ahead of competitors. In line with the RBV, competitive advantages in high-technology environments are created not solely by the use of static resources but also depend on each organisation's capacity to frequently reconfigure and compete by renewing its resources (Peteraf, Di Stefano & Verona 2013; Teece 2018). This has led to a conceptualisation of digitalisation as a strategic resource that supports the enhancement of organisational capability and performance. Thus, in the context of this study, digital technologies adopted and utilised by an organisation should generate positive outcomes for the organisation. This means organisations should carefully select and utilise digital technologies to capture their benefits, rather than adopting them based on popularity. Benefits accrued from digitalisation should be aligned with the overall business strategy and resource capacity (OECD 2024).

According to the RBV, digitalisation is closely related to it, as it involves the intangible and tangible resources combined into a portfolio of technological systems, data networks, and people's capabilities. Nonetheless, in relation to RBV, technology alone will not provide a sustained competitive advantage unless combined with additional organisational capabilities, including having skilled employees, adaptive leadership, and a data-driven culture (Soto-Acosta 2020). Therefore, digitalisation must be understood not just as a process of technology adoption but also as a form of socio-technical change, where technology, people, and processes come together to form an interrelated set of capabilities (Vial 2019). Capacity to adopt digital technologies and readiness differ across industries such as manufacturing, retail and finance (UNCTAD 2021). This reinforces the RBV's argument that resources must be effectively integrated and used to provide value.

Conceptualising digitalisation in organisations

Digitalisation encompasses the integration of digital technologies into organisational processes, altering how an organisation creates value, interacts with stakeholders, and provides service (Verhoef et al. 2021; Vial 2019). Thus, digitalisation is regarded as a multidimensional phenomenon, with technological, organisational, and environmental elements. Kraus et al. (2022) note that digitalisation involves adopting new technologies but also includes changing the leadership of the organisation, the organisational culture, and the business ecosystem in which the organisation functions (Kraus et al. 2022) and, as observed by Nambisan et al. (2017), the digitalisation process creates new digital ecosystems that allow organisations to create value. These findings also further support the notion that digitalisation must be seen as a systemic organisational transformation, rather than just simply an upgrade of technology. In developing economies such as South Africa, the complexity of digitalisation is further exacerbated by disparities in infrastructure and digital capabilities across industries (Jere & Ngidi 2020; World Bank 2023).

Digitalisation and organisational efficiency

The digitalisation process is believed to increase organisational efficiency through the automation of processes, the reduction of bottlenecks and the improved utilisation of organisational resources (Gama et al. 2025). Organisational efficiency entails the optimal functioning of various business processes and the effective use of the organisation's physical, financial, and human resources (Gama et al. 2025). Digitalisation fosters the efficient allocation and management of resources, such as personnel, equipment, money, and time, resulting in improved

organisational performance (Kallmuenzer et al. 2024). Digitalisation reduces the costs of holding excessive stock or running out of stock, and decisions related to procurement, production, and distribution are informed by analytical insights sourced from market trends and sales data (Anica-Popa et al. 2021; Mykytenko & Rzaieva 2024). As time-consuming manual tasks are eradicated, market demand is matched with inventory levels, resulting in the optimisation of stock (Bondar et al. 2024). According to a report by McKinsey and Company (2023), organisations with digital maturity regularly outperform other organisations in both productivity and cost-effectiveness through advanced automated systems and data-driven decision-making. Similarly, according to Deloitte (2023), organisations that implement digital workflows will have their administrative costs and delays in completing various processes decreased.

In a manufacturing setting, the implementation of various digital technologies (e.g. robotics, predictive maintenance, Internet of Things devices) can lead to increased efficiency and reduced machinery downtime (UN 2025). The use of these technologies allows firms to continuously monitor the performance of their machinery and predict the potential for machinery failure before it happens. In the retail industry, by automating processes relating to inventory management and supply chain optimisation, organisations can respond better to fluctuations in consumer demand (OECD 2024). Likewise, financial institutions are utilising automated processes to process transactions, identify fraudulent transactions as well as meet their compliance reporting requirements; all of which result in lower operational costs without sacrificing service accuracy (Hlophe & Mabetha 2025; Karountzos 2025). Although improvements in efficiency because of digitalisation are widely acknowledged, researchers (Verhoef et al. 2021) have warned that there is an uneven distribution of efficiency gains among organisations and that it may be due, in part, to the relative levels of organisational readiness and digital maturity across the organisation (Verhoef et al. 2021).

Digitalisation and innovation capability

Digitalisation has become an important way for organisations to create new products, services, and business models through access to real-time data and analytics (Karountzos 2025). According to Kraus et al. (2022), firms that successfully integrate digital tools into their innovation process can achieve radical rather than incremental innovation. There are benefits of using digitalised systems, including decreased experimentation costs and improved speed of feedback loops between organisations and their customers.

The use of digital technologies to create innovative solutions in the financial industry has been demonstrated through innovations such as fintech platforms, mobile banking applications and blockchain transaction solutions (Hlophe & Mabetha 2025). These technologies can dramatically change banking by making banking services more accessible while reducing transaction costs. Digital platforms such as e-commerce marketplaces and omnichannel retail systems have enabled companies to innovate how they engage and provide services to their customers (Karountzos 2025). While manufacturing companies have been slower at adapting to digital technologies, they too are using these technologies to develop new ways of producing products and delivering them to customers through their supply chains (Karountzos 2025). It has been found, however, that innovation outcomes, especially in developing countries, can be inhibited by factors such as organisational culture, skills shortages, and resistance to change (Jere & Ngidi 2020; UN 2025).

Digitalisation and customer relationship management

Digitalisation provides organisations with an advantage in managing their customer relationships by improving engagement strategies (Kallmuenzer et al. 2024; Oosthuizen et al. 2021). Digital systems make it easy for businesses to gather and use customer data, helping them to provide better-tailored services and more effective customer engagement. According to Kallmuenzer et al. (2024) and Oosthuizen et al. (2021), organisations that employ advanced customer relationship management systems are more successful at retaining customers because they offer greater personalisation and responsiveness. Likewise, Verhoef et al. (2021) indicated that developing digital customer engagement plans can improve customer satisfaction and loyalty. This positions the organisation as a customer-centric leader (Kallmuenzer et al. 2024). Organisations that do not integrate digital technologies into their operations risk losing their competitive advantage and operational efficiency (Bondar et al. 2024).

Some retail organisations have experienced a transformation in customer interactions as a result of the implementation of e-commerce, mobile applications, and social media-based engagement. These platforms allow retailers to better connect with customers in time and tailor their offerings to reflect their customers' preferences (Sagio, Pramesworo & Ekasari 2025). Financial organisations have experienced improvements in access and convenience through digital banking platforms such as mobile money and online banking (Karountzos 2025). Manufacturing organisations can leverage digital platforms to enhance their business-to-business interactions and to increase the transparency of their supply chains (Karountzos 2025). Nonetheless, for organisations to successfully utilise digital customer relationship management systems, they must have reliable data quality, the ability to integrate their systems, and an organisation willing to leverage customer data insights (OECD 2024).

Digitalisation, employee engagement and organisational collaboration

The impact of digitalisation on enhancing internal processes in organisations is believed to be considerable. In terms of employee engagement and collaboration, organisations are finding that digital communication tools such as Microsoft

Teams, Slack, and enterprise resource planning systems can facilitate real-time collaboration across all departments and locations globally (Sichoongwe 2023; Soto-Acosta 2020). These systems also help to create transparency, eliminate communication delays, and improve the efficiency of coordinating activities (Mahomed, Oba & Sony 2023). Empowering employees with digital solutions streamlines their workflows and tasks, allowing them to refocus on strategic, more meaningful work (Mahomed et al. 2023; Nyabvudzi & Chinyamurindi 2025). In addition, digitalisation enables employees to develop new skills, becoming adept and digitally competent in using technologies to pursue their career goals and take ownership of their professional development (Ma, Zheng & Wei 2023). This, in turn, enhances employee engagement by fostering a sense of empowerment, job satisfaction, and accomplishment (Nyabvudzi & Chinyamurindi 2025).

Employees who work digitally are believed to experience increased engagement via flexible working arrangements and reduced administrative burden (Deloitte 2023; Sichoongwe 2023). In South Africa, the use of mobile applications has created new avenues for organisations to interact with consumers and digitalise processes, enabling, for example, greater financial inclusion within the financial industry (Phalatse, Arthur & Rensleigh 2025). Customers, especially in underdeveloped rural areas, can now access banking services through mobile applications without visiting physical bank branches (Phalatse et al. 2025; Umar 2022). In addition, mobile payment systems such as SnapScan and Zapper facilitate cashless payments, promoting online business and lower operational costs among organisations (Umar 2022). However, these results are dependent on individual employees' digital skills and the support structures provided by their organisation. According to Thite (2019), for employees to realise the benefits of digitalisation, they must have some level of digital literacy. In limited-skill work contexts, the introduction of digital technologies may result in exclusive rather than inclusive outcomes (Thite 2019).

Furthermore, to improve collaboration among employees within an organisation, digitalisation has created new opportunities for external collaboration (Eurofound 2021). Digital platforms enable organisations to collaborate with suppliers, customers and partners in real-time, resulting in stronger supply chain integration and improved participation in digital ecosystems (Kraus et al. 2022). Nevertheless, cybersecurity issues and privacy-related challenges may continue to pose serious barriers to realising these digitalisation benefits (World Bank 2023).

Based on the research context and literature review above, the following hypotheses (H) were formulated for the study:

> **H_{11}-**Digitalisation holds significant benefits for organisations in selected industries in South Africa.
>
> **H_{01}**-Digitalisation does not hold significant benefits for organisations in selected industries in South Africa.

Industrial differences in digitalisation benefits: The industry in which an organisation operates affects its ability to derive value from digitalisation. For example, at the highest end of the spectrum is the financial industry, which is described as the most advanced in digitalisation because of its data-heavy operational nature and strong regulation that supports innovation (Karountzos 2025). Most financial organisations have invested substantial amounts of money in digital banking capabilities, AI-enabled risk management methods and automated compliance systems to improve efficiency and service delivery (Hlophe & Mabetha 2025).

Compared to this, the retail industry is experiencing moderate to high levels of digitalisation because of both changes in consumer behaviours and competitive pressure from e-commerce businesses (Chapano & Werner 2026; Karountzos 2025). Within the retail industry, the focus of digitalisation has largely been on customer experience and an effective omnichannel approach. The use of digitalisation to optimise the supply chain is also an important area (Karountzos 2025). However, other retailers are resource-constrained and thus have difficulty implementing more sophisticated and advanced forms of digitalisation (Chapano & Werner 2026).

In the manufacturing industry, the level of digital maturity is lower than the other two industries because of the need for significant investment in new, advanced manufacturing technology, the need to replace outdated manufacturing equipment and facilities, and energy-related constraints (UN 2025). There is an opportunity associated with the adoption of Industry 4.0 technologies (Mthembu 2025). However, the rate at which developing countries have adopted these technologies is slow (UN 2025). Manufacturing companies also tend to focus on operational reliability rather than pursuing non-traditional digitalisation strategies, thus delaying the realisation of digitalisation benefits (UNCTAD 2021).

Contextual elements are crucial to consider for their contributions to determining the successful outcome of industry-specific digitalisation efforts (World Bank 2023). The RBV posits that an organisation's capabilities and resource base will ultimately shape its ability to utilise digital technologies effectively (Wright & Ulrich 2017).

Based on the research context and literature review above, the following hypotheses were formulated for the study:

> **H_{12}-**There is a significant difference in the perception of the benefits of digitalisation for organisations across the manufacturing, retail and finance industries in South Africa.
>
> **H_{02}-**There is no significant difference in the perception of the benefits of digitalisation for organisations across the manufacturing, retail and finance industries in South Africa.

Organisational practices facilitating the realisation of digitalisation benefits: It is emphasised that, to realise maximum benefit from digitalisation, organisations must be relentless in their digitalisation efforts (Faiz et al. 2024;

Gama et al. 2025). In this respect, the role of leadership and organisational culture is emphasised (Faiz et al. 2024; Mashinini & Sethibe 2025; Mkhize et al. 2025; Mokganya et al. 2024; Munsamy 2022). Digitalisation is perceived as more than simply implementing digital technologies (Gama et al. 2025), as it involves cultivating a digital culture that nurtures innovation, promotes adaptability, and instils a forward-thinking mindset among employees at all organisational levels (Munsamy 2022; Schilirò 2024). Leaders are seen to play a central role in embedding a digital organisational culture by leading by example, promoting life-long learning, and being open to change, to create an atmosphere in which employees feel empowered to contribute ideas and participate in the organisation's digitalisation journey (Mashinini & Sethibe 2025; Mokganya et al. 2024; Munsamy 2022). A lack of sufficient support to sustain digitalisation efforts contributes to setbacks in digitalisation (Chapano, Mey & Werner 2023; Mkhize et al. 2025), therefore, organisational leaders need to ensure that digital technologies are aligned with organisational processes, systems, and strategies (Chapano et al. 2023; Schilirò 2024).

In this vein, it is believed that digitalisation thrives in a digital culture that enables employees to experiment with emerging digital technologies, explore new ideas, take calculated risks, explore digital opportunities, and continuously improve and learn from failures (Hartl & Hess 2017).

Synthesis and research gap: The given literature findings confirm that digitalisation benefits may include increased efficiency and effectiveness, innovation, collaboration, customer engagement, and employee engagement. However, many of the benefits may not be found in different industries or types of organisations.

Currently, the literature has identified a gap in research in perceptual studies across industries in developing countries, such as South Africa, on the benefits of digitalisation for organisations. Almost no existing literature has simultaneously analysed the three industries (manufacturing, retail and finance) under a single unifying analytical framework in the context of South Africa.

By examining digitalisation-related potential benefits for organisations from the perceptions of respondents in each of the three identified industries, this study fills the gap in providing additional insights into how digitalisation is experienced at the organisational level, while adding to the literature by integrating perceptual and industrial-level analysis in an effort to provide a more thorough understanding of the outcomes of digitalisation in developing countries.

Research methods and design

Research paradigm, approach, and design

For this study, a positivist research paradigm and quantitative approach have been adopted. Positivists deal with observable or measurable phenomena to produce generalisations, focusing on facts and pure data to minimise human bias (Kumar 2019; Saunders, Lewis & Thornhill 2023). This research paradigm and approach suit the descriptive and explanatory research design of this study, allowing a description of the phenomenon under study. This study aimed to empirically determine perceived benefits of digitalisation for organisations across three industries, namely manufacturing, retail, and finance in South Africa, from the perceptions of non-managerial employees and managers. As a result, the use of a cross-sectional research method ensured that quantifiable data were collected at a single point in time using a survey. The positivist research paradigm assumes an objective measurable reality that exists independently of how humans experience it in their minds. Positivism is commonly used in quantitative organisational studies to provide a basis for testing hypotheses and statistically analysing variables (Saunders et al. 2023). The adoption of the positivist paradigm for this research is justified by the purpose of generating objective, empirical evidence about the variables (Kumar 2019). Thus, a positivist approach is suitable because the perceived benefits of digitalisation for organisations were assessed using a structured Likert-scale measure, thereby enabling objective measurement. In addition, a positivist paradigm places significant emphasis on hypothesis testing, measurement, and statistical analysis, therefore providing a framework for measuring perceived benefits of digitalisation for organisations.

Population

This study focused on non-managerial employees and managers working in organisations listed on the Johannesburg Stock Exchange (JSE) within three industries in South Africa, namely manufacturing, retail and finance. The selection of these industries was based on suggestions that the finance, retail, and manufacturing industries could be greatly impacted by 4IR technologies (International Trade Administration Commission [ITAC] 2024) because of their representation as a pillar of the South African economy and as a result of the variance in their digital maturity (Chapano & Werner 2026; Matemane, Msomi & Ngundu 2024; Price Waterhouse Coopers [PwC] 2024).

Sampling

While probability sampling is the gold standard for statistical generalisation in quantitative studies, non-probability methods were strictly used in this study to access the target population (Maksimović & Evtimov 2023). Purposeful sampling was used to target managers and non-managerial employees at all levels in JSE-listed organisations in the retail, finance, and manufacturing industries in South Africa who have worked for at least 3 years within their organisations. Using convenience sampling, respondents participated in the study based on their accessibility, availability and willingness, while using snowball sampling, respondents who had already agreed to participate in the study were asked to identify other respondents who met the criteria to participate.

Research measuring instrument

A structured self-administered questionnaire, distributed both on QuestionPro online platform and in person, was used to collect the empirical data. The first section gathered biographical details of the respondents, including their industry, whether the organisation was JSE-listed, their position, department or functional area, organisational level, length of service, and highest level of education. The second section consisted of 10 items and measured respondents' perceptions of the extent to which their organisations experienced benefits from digitalisation. For example, respondents were asked to rate the extent to which their organisations experienced 'reduced labour costs' because of digitalisation. All 10 statements were measured on a five-point Likert rating scale, with answer options ranging from not at all (1) to a small extent (2), to a moderate extent (3), to a great extent (4), to a very great extent (5). The items were extracted from the literature on the organisational benefits of digitalisation, as no existing validated questionnaire was found. The questionnaire was distributed online from the QuestionPro platform, while hard copies were made available to respondents on request.

Statistical analysis

Data analysis refers to the process of transforming collected data into meaningful information using data analysis techniques (Saunders et al. 2023). Both descriptive and inferential statistics computed using Statistical Package for the Social Sciences (SPSS) version 31 (IBM Corp., Armonk, NY, United States [US]) were utilised to analyse the data. Descriptive statistics, including Exploratory Factor Analysis (EFA), mean scores (*M*), standard deviations (s.d.) and Cronbach's alpha coefficients, offered a comprehensive summary of the data. Cronbach's alpha determined reliability, while EFA validated the set of items on perceived benefits of digitalisation for organisations (Hair et al. 2019). The prior studies from which the set of items was developed included Bondar et al. (2024), Eurofound (2021), Gama et al. (2025), Kraus et al. (2022), Kallmuenzer et al. (2024), Munatsi (2025), and Nzama et al. (2024), covering both the South African and other national contexts. Contextual differences in digital maturity, the digital divide, education, language, and industry across countries can limit the applicability of these items in an emerging economy such as South Africa. Hence, by validating the scale in the South African context, this study extends the literature and evidence-based knowledge.

Inferential statistics were used to ascertain the significance of the variables. A one-sample *t*-test was conducted to test hypothesis 1 by comparing the mean of the perceived benefits of digitalisation for organisations to the moderate midpoint of 3. A one-sample *t*-test is commonly used in organisational research to determine whether there is a statistically significant difference between the mean of the positive responses and the mean of the moderate responses (Hair et al. 2019). Hypothesis 1 was as follows:

> $\mathbf{H_{11}}$-Digitalisation holds significant benefits for organisations in selected industries in South Africa.
>
> $\mathbf{H_{01}}$-Digitalisation does not hold significant benefits for organisations in selected industries in South Africa.

Analysis of Variance (ANOVA) was used to test hypothesis 2 by comparing whether there were significant differences in the perceptions of the benefits of digitalisation for organisations between industries (Hair et al. 2019). Analysis of Variance is appropriate for comparing several groups by examining the mean scores of each group (Hair et al. 2019). To determine which industries differed significantly from one another, Scheffé test was used as a conservative post hoc procedure. Effect sizes (Cohen's *d*) were computed to provide an assessment of the size of these differences, as recommended by today's standards of reporting in quantitative research (Saunders et al. 2023). Analysis of Variance was used to test Hypothesis 2, as follows:

> $\mathbf{H_{12}}$-There is a significant difference in the perception of the benefits of digitalisation for organisations across the manufacturing, retail and finance industries in South Africa.
>
> $\mathbf{H_{02}}$-There is no significant difference in the perception of the benefits of digitalisation for organisations across the manufacturing, retail and finance industries in South Africa.

Ethical considerations

This study formed part of a larger mixed-method research study on digitalisation in the South African workplace, and it reports on the quantitative section of the data. All ethical guidelines for the study were adhered to throughout the research. Ethical clearance to conduct this study was obtained from the Nelson Mandela University Research Ethics Committee (No. 1554), before data were collected. Respondents were provided with clear information about the aim of the study, including eligibility criteria and guidelines to complete the questionnaire. To reduce bias, all data were collected and analysed systematically to ensure the findings accurately reflect the target population without researcher interference. For instance, respondents were informed that participation was voluntary and that they could withdraw from the study at any time without consequences. No personal or identifying information was collected from the respondents. Data were processed using SPSS version 31.

Results

A total of 185 questionnaires were accessed. The data cleaning process resulted in 111 usable responses. Most respondents (47%) were from the retail industry, followed by finance (31%), and manufacturing (22%). Non-managerial employees (54%) and managers (44%) made up most of the respondents, while only 2% were assistant managers. In addition, a diploma was cited most often (34%) as the highest level of education, followed by respondents with a higher certificate (27%), a Grade 12 certificate or less (20%), an Advanced diploma or bachelor's degree (16%), and an honours or postgraduate diploma (3%). Table 1 summarises the EFA results for the perceptions of the benefits of digitalisation for organisations.

To check sampling adequacy and data suitability, Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity (BTS) were calculated. As indicated in Table 1, the sample size was credible with a KMO value greater than 0.5, while the BTS confirmed the suitability of the data with a significance level of $p < 0.05$ (Hair et al. 2019). To determine the factor structure and validate the set of items of the perceived benefits of digitalisation for organisations, EFA was used. Table 1 shows that the EFA resulted in the 10 items being a single factor (64.87%), and the total variance is greater than 50%, and therefore indicates strong evidence of a single underlying construct called perceived benefits of digitalisation for organisations (Hair et al. 2019). Table 2 summarises the factor loadings of perceived benefits of digitalisation for organisations.

Factor loadings for each item in Table 2 are between 0.693 and 0.879, which exceeds the minimum acceptable threshold of 0.521, therefore confirming that each item is a valid measurement of the underlying construct (Hair et al. 2019). Table 3 summarises descriptive statistics of perceived benefits of digitalisation for organisations.

As indicated in Table 3, the factor 'perceived benefits of digitalisation for organisations' obtained a mean (M) score of 3.60, depicting moderate to great benefit derived from digitalisation. The high Cronbach's alpha coefficient of 0.94 indicates excellent internal consistency reliability. This is above the 0.70 threshold (Hair et al. 2019). Because the scale midpoint is 3, the respondents have a moderately positive view of the benefits of digitalisation in their organisation ($M = 3.60$). The standard deviation (s.d. = 0.79) indicates a wide variance in the results; therefore, although most respondents agree on the perceived benefit of digitalisation for organisations, differing views likely result from the different industries and organisations represented in this study. Therefore, it can be concluded that every item on this scale reliably measured the same concept (i.e. perceived benefits of digitalisation for organisations). Table 4 reports the mean scores for each item of the perceived benefits of digitalisation for organisations factor.

The highest mean score (see Table 4) was obtained for the item 'greater productivity' ($M = 3.78$). This was closely followed by 'increased revenue' ($M = 3.67$), 'more innovation' ($M = 3.67$), 'enhanced customer relationships' ($M = 3.66$), 'better market penetration' ($M = 3.62$), and 'more inclusivity within the organisation' ($M = 3.60$). This indicates that respondents believe digitalisation is beneficial for organisations and that their primary association with digitalisation is as a means of improving performance, particularly to enhance efficiency, productivity, and output, improve relationships with customers, increase market share, and promote inclusive workplaces. In contrast, 'reduced labour costs' ($M = 3.38$) and 'greater employee engagement' ($M = 3.51$) received the lower average ratings. This means the cost-saving and human resource-related advantages of digitalisation are perceived as unlikely to be fully realised. The one-sample t-test results are presented in Table 5.

One-sample t-tests (see Table 5) were used to test for significance in relation to hypothesis 1. The 'perceived benefits of digitalisation for organisations' factor was evaluated to determine whether it was significantly greater

TABLE 1: Exploratory factor analysis Eigenvalues for perceived benefits of digitalisation for organisations ($N = 111$).

Factor	Eigenvalues	% total variance
1	6.487	64.87
2	0.955	9.55
3	0.796	7.96
4	0.543	5.43
5	0.473	4.73
6	0.243	2.43
7	0.168	1.68
8	0.155	1.55
9	0.104	1.04
10	0.077	0.77
Kaiser-Meyer-Olkin measure of sampling adequacy	-	0.853
Bartlett's test of sphericity	Approx. Chi-square	1022.458
	df	45
	Sig.	0.001

Note: Extraction method: Principal component analysis.
df, degrees of freedom; Sig., significance.

TABLE 2: Exploratory factor analysis loadings (1 factor model) – for perceived benefits of digitalisation for organisations ($N = 111$).

Item	Factor 1
1. Enhanced customer relationships	0.784
2. Better market penetration	0.712
3. Reduced labour costs	0.693
4. Reduced operational costs	0.803
5. Increased revenue	0.838
6. Better collaboration with external stakeholders	0.839
7. More inclusivity within the organisation	0.858
8. Greater productivity	0.879
9. More innovation	0.867
10. Greater employee engagement	0.758

Note: Minimum significant loading = 0.521. Total % of variance explained = 64.9%.

TABLE 3: Descriptive statistics for the perceived benefits of digitalisation for organisations ($N = 111$).

Descriptive statistics	
Mean	3.60
Std. deviation	0.79
Cronbach's alpha	0.94

Std., standard.

TABLE 4: Mean scores for the perceived benefits of digitalisation for organisations items.

Item	Mean
1. Enhanced customer relationships	3.66
2. Better market penetration	3.62
3. Reduced labour costs	3.38
4. Reduced operational costs	3.57
5. Increased revenue	3.67
6. Better collaboration with external stakeholders	3.58
7. More inclusivity within the organisation	3.60
8. Greater productivity	3.78
9. More innovation	3.67
10. Greater employee engagement	3.51

than the hypothetical mean score (3), showing a 'moderate extent' score. The findings of a one-sample *t*-test (see Table 5) reveal a mean (*M*) score for perceived benefits of digitalisation for organisations of 3.60 ($M > 3$), t (110) = 8.066, $p < 0.001$, indicating that the mean score is significantly above the test value. The mean difference of 0.604, with a 95% confidence interval ranging from 0.455 to 0.752, indicates the difference is both statistically and practically significant and that the respondents perceive digitalisation as profitable or beneficial to organisations. Therefore, the hypothesis that H_{11}- Digitalisation holds significant benefits for organisations in selected industries in South Africa is accepted, while the H_{01}- Digitalisation does not hold significant benefits for organisations in selected industries in South Africa is rejected. The results of ANOVA are presented in Table 6. The ANOVA was used to test hypothesis 2.

The D.F (2; 97) value of 11.10 ($p < 0.001$) (see Table 6) indicates a statistically significant effect of industry on perceived benefits of digitalisation for organisations. Respondents from industries selected for this study (manufacturing, retail and finance) had different opinions regarding the benefits of digitalisation, so it can be concluded that industry is a primary driver of perception of the benefits of digitalisation. In contrast, job position, educational background, or time in service did not result in statistically significant differences. Therefore, hypothesis H_{12}: There is a significant difference in the perception of the benefits of digitalisation for organisations across the manufacturing, retail and finance industries in South Africa is accepted, while hypothesis H_{02}: There is no significant difference in the perception of the benefits of digitalisation for organisations across the manufacturing, retail and finance industries in South Africa is rejected.

The post hoc Scheffé Test indicates that respondents in the finance industry perceived benefits of digitisation for organisations at a higher level ($M = 3.96$) with a large effect size (Cohen's $d = 1.18$). In contrast, those in the manufacturing industry have perceived benefits at an average level ($M = 3.15$) (see Table 6). This demonstrates a statistically significant difference between these two industries, as well as a substantive statistical (practical) difference. Respondents in the retail industry perceived benefits relative to those in the manufacturing industry, which are close to statistical (practical) significance, with a *p*-value of 0.053 and a moderate effect size ($d = 0.55$), showing that retail industries are more likely to perceive benefits from digitisation than manufacturing industries. In contrast, a comparison between retail and finance industries yielded no significant difference at the 0.05 level ($p = 0.088$), and the moderate effect size ($d = 0.53$) indicates that the perceived difference is meaningful from a practical standpoint.

TABLE 5a: One-sample *t*-test for perceived benefits of digitalisation for organisations.

t	*df*	Significance		Mean difference	95% confidence interval of the difference	
		One-sided *p*-value	Two-sided *p*-value		Lower	Upper
8.066	110	0.001	0.001	0.604	0.455	0.752

Note: One-sample test. Test value = 3.
Std., standard; *df*, degrees of freedom.

TABLE 5b: One-sample *t*-test for perceived benefits of digitalisation for organisations.

N	Mean	Std. deviation	Std. error mean
111	3.60	0.79	0.075

Note: One-sample statistics.
Std., standard; *df*, degrees of freedom.

Discussion

Outline of the results

The focus of this discussion was the respondents' perceived benefits of digitalisation for organisations, as measured using EFA, descriptive statistics, one-sample *t*-test and ANOVA. The results are based on a survey that was administered among non-managerial employees and managers working in JSE-listed organisations in South Africa, within financial, retail, and manufacturing industries.

Exploratory factor analysis results

The EFA results produced a one-factor model labelled perceived benefits of digitalisation for organisations, explaining a total variance of 64.87% (see Table 1). Loadings for all 10 items were significant, ranging from 0.693 to 0.879, which were higher than the minimum significant loading of 0.521 (see Table 2), confirming that there was no significant variation among the 10 items but that they all refer to similar content and constitute a single factor, labelled perceived benefits of digitalisation for organisations. This finding is based on an adequate sample and suitable data, as confirmed by KMO and BTS tests, respectively. In addition, an excellent Cronbach's alpha coefficient of 0.94 (see Table 3) was obtained, confirming that the variables reliably measured perceived benefits of digitalisation for organisations. Hair et al. (2019) posited that if constructs are contextually integrated and conceptually broad, one-dimensionality is

TABLE 6a: Analysis of variance and post hoc results for the perceived benefits of digitalisation for organisations.

Effect	*F*-value	*df*	*p*-value	Cohen's *d*
Industry	11.10	2; 97	0.0005	n/a
Position	0.04	1; 97	0.834	n/a
Level	0.37	2; 97	0.693	n/a
Length of service	1.06	2; 97	0.351	n/a
Highest education level	1.73	3; 97	0.167	n/a

Note: ANOVA results for perceived benefits of digitalisation for organisations; 0.50 < [*d*] < 0.80 = medium practically significant effect; [*d*] > 0.80 = large practically significant effect.
ANOVA, analysis of variance; *df*, degrees of freedom.

TABLE 6b: Analysis of variance and post hoc results for the perceived benefits of digitalisation for organisations.

Effect	Level 1	Level 2	M_1	M_2	Scheffé *p*	Cohen's *d*
Industry	Retail	Finance	3.60	3.96	0.088	0.53
	Retail	Manufacturing	3.60	3.15	0.053	0.55
	Finance	Manufacturing	3.96	3.15	0.000	1.18

Note: Post hoc results for perceived benefits of digitalisation for organisations; 0.50 < [*d*] < 0.80 = medium practically significant effect; [*d*] > 0.80 = large practically significant effect.
ANOVA, analysis of variance; *df*, degrees of freedom.

theoretically meaningful and acceptable. The item variables, such as 'greater productivity' and 'increased revenue', were broad and contextually integrated, encompassing literature reviews in both the South African and international contexts. In this study, it was necessary to determine whether the 10 items measuring perceived benefits of digitalisation for organisations represented multiple factors or could be grouped into one-factor. This is because the items were derived from the literature spanning diverse national contexts, including South Africa, qualifying them to potentially produce more than one grouping because of contextual differences in terms of infrastructure, digital divide, and differences in educational levels across the different countries (Anderton et al. 2023; Faiz et al. 2024).

The formation of the one-factor model can be interpreted to mean that respondents in South Africa's manufacturing, retail and finance industries perceive similar organisational benefits from digitalisation as reported in other national contexts, and that all items included in the measurement instrument validly measure perceived benefits of digitalisation for these organisations. This also means that the perceived benefits of digitalisation for organisations are experienced as a single integrated outcome rather than as separate dimensions. This is particularly relevant in a developing country such as South Africa, whose digital transformation is either at an early or intermediate stage (Gertzen, Van der Lingen & Steyn 2022); hence, the overall value realisation, rather than a fine-grained differentiation of organisational benefits, could be the focus. This result is consistent with a recommendation based on a study by Gertzen et al. (2022) in South Africa, which suggested the value of digitalisation to be viewed from a holistic perspective, using both new and traditional evaluation criteria. From a theoretical perspective, this supports the RBV, which views an organisation's resources (e.g. digital technologies and related skills) as interconnected bundles of resources rather than independent elements (Teece 2018; Wright & Ulrich 2017).

Descriptive analysis

The mean score for the perceived benefits of digitalisation among the surveyed organisations obtained within the South African context was 3.60. From this result, it can be inferred that respondents perceived that digitalisation generates benefits for organisations. In organisational research, mean values exceeding the midpoint indicate positive evaluations, and this view is usually supported by statistically significant inference testing (Field 2024; Hair et al. 2019). The results are consistent with findings from the literature review that highlight the benefits of digitalisation for organisations. For example, efficiency in the production and distribution of goods and services, as well as the assumption of social responsibility, are among the benefits of digitalisation for organisations (Gertzen et al. 2022; Islam et al. 2023; Mkhize et al. 2025; Nzama et al. 2024). Operational efficiency arises as delays and errors in the production and supply of commodities are reduced through digitalisation, manual tasks are automated, and supply chain performance is monitored in real-time (Abeyratne & Monfared 2016). Real-time monitoring of processes increases transparency, enables the proactive identification of bottlenecks, and fosters quicker decision-making and inventory management (Anica-Popa et al. 2021; Mykytenko & Rzaieva 2024). Using digital metrics and analytics, carbon emissions can be monitored and reduced, thereby promoting environmental sustainability, performance, and collaboration among different stakeholders (Sichoongwe 2023).

Among the items of perceived benefits of digitalisation, higher means were obtained for 'greater productivity', 'increased revenue', 'more innovation', 'enhanced customer relationships', 'better market penetration', and 'more inclusivity within the organisation' (see Table 4). These variables are cornerstones for building sustainable organisations and achieving a competitive advantage. Organisations need to produce more at less cost to have enough working capital and revenue to acquire assets and meet day-to-day operational costs (Kallmuenzer et al. 2024). To achieve this, strong relationships with customers should be forged, and resources to penetrate niche and difficult markets should be obtained. Digitalisation can make this possible as the use of digital technologies is associated with improvement in decision-making, production, traceability, transparency, and accuracy within organisational operations (Gama et al. 2025).

These results coincide with literature findings. Many current global studies have shown that the most immediate and observable benefits of digitalisation are associated with productivity increases (McKinsey & Company 2023; OECD 2024). By implementing digital technologies such as automation, data analysis tools and integrated enterprise systems, organisations can increase productivity by streamlining operations and reducing operational inefficiencies (Deloitte 2023). Digitalisation contributes to organisational innovation, performance, market competitiveness, and building inclusive workplaces (Kraus et al. 2021; Mpedi & Marwala 2025; Van Niekerk & Phaladi 2021; Verhoef et al. 2021). It also aids collaboration and connections with stakeholders and customers in underserved areas, which fosters sustainable relationships (Eurofound 2021; Phalatse et al. 2025; Sichoongwe 2023; Umar 2022).

The fact that perceived benefits of digitalisation items, except 'reduced labour costs' (M = 3.38), had mean scores above 3.50 implies that respondents agree that they are experiencing digitalisation benefits across many areas, aligning with the literature finding that digitalisation is a ubiquitous phenomenon that is impacting every facet of the business and transforming both traditional business and financial models (Chapano 2022). This could also mean that the respondents are past the awareness stage, something common in post-COVID-19 digitalisation studies (Chapano 2022).

However, the effect of digitalisation on reducing labour costs has received a moderate rating ($M = 3.38$). One reason digitalisation is resisted within organisations is that it may result in job losses, as digital technologies are perceived as taking over work previously performed by human employees (Frey & Osborne 2017; Nartey 2025). In a digital world, some employees may lose their jobs because of digitalisation, which could result in toxic employer–employee relationships, and trade unions could be blamed by their constituents for not fighting for their social-economic welfare (Mpedi & Marwala 2025). At the same time, the effectiveness of strikes could be reduced because of fewer workers available to participate in them (Mpedi & Marwala 2025). To avert this problem and maintain harmonious workplaces, measures should be put in place to enable human workers to work alongside technologies. Such measures could include reskilling initiatives and digital literacy programmes aimed at creating sustainable jobs (Frey & Osborne 2017). However, digitalisation will not always result in job displacement, as more jobs are forecast to be created (Mpedi & Marwala 2025), although this is not guaranteed. But these results indicate that although productivity and innovation benefits are clearly perceived, human and cost benefits are likely to lag, especially in emerging economies such as South Africa (World Bank 2023).

One-sample *t*-test and testing of hypothesis 1

The result of the one-sample *t*-test reveals that the perceived benefits of digitalisation for organisations ($M = 3.60$; s.d. = 0.79) (t [110] = 8.066, $p = 0.001$) statistically and significantly exceeded the '3' hypothetical mean rating, demonstrating significant perceived benefits of digitalisation for organisations in South African manufacturing, retail and finance organisations. Consequently, the results of this study support $\mathbf{H_{11}}$**:** Digitalisation holds significant benefits for organisations in selected industries in South Africa. The results obtained in this study emphasise that digitalisation generates value, and organisations can harness its benefits (Bondar et al. 2024; Eurofound 2021; Gama et al. 2025; Kraus et al. 2022; Munatsi 2025; Nzama et al. 2024). South Africa has been projected to benefit considerably from digitalisation (Magwentshu et al. 2019). As per Field (2024), results such as these provide strong evidence against the null hypothesis, thereby supporting perceived benefits of digitalisation as a significant contributor to organisational outcomes. These results are also consistent with global research on the positive contribution of digitalisation initiatives towards organisational outcomes, especially when appropriate resources and capabilities are available (McKinsey & Company 2023; OECD 2024).

Analysis of variance and post hoc analysis

The ANOVA and post hoc results, which provide empirical evidence of a significant difference in perceived benefits of digitalisation for organisations across the manufacturing, retail and finance industries in South Africa, align with prior research. The finance industry is regarded as having the highest level of digital maturity because of its greater use of digital technology, including fintech, artificial intelligence (AI) and automated service delivery systems (Hlophe & Mabetha 2025). On the other hand, the manufacturing industry is seen as having lower levels of digital maturity because of structural limitations, including legacy systems, capital-intensive operations and poor infrastructure, which hinders the ability to implement digital solutions (Chapano & Werner 2026; UN 2025; UNCTAD 2021). The retail industry is regarded as having a medium level of digital maturity as it continues to transition towards a fully integrated digital model, driven in part by the growth of e-commerce and changes in consumer purchasing behaviours (Deloitte 2023; Karountzos 2025). Consequently, the value of digital assets is based on both a firm's capabilities and the industry it operates (Teece 2018; Wright & Ulrich 2017). As noted by Teece (2018) and Wright and Ulrich (2017), from the RBV perspective, organisations with stronger capabilities will be better positioned to leverage their investments in digital technologies to achieve greater levels of organisational performance. Therefore, the differences that exist between industries reinforce the importance of aligning capabilities to realise the benefits of digitalisation for organisations.

Practical implications and recommendations

The results of this study could serve as a strong basis for deliberation among businesses, organisational leaders, policymakers, social partners, and researchers on the implementation and funding of digitalisation in South Africa, particularly in manufacturing, retail and finance industries. Previous studies, which were mostly theoretical, revealed that limited empirical research has been undertaken investigating how perceived benefits of digitalisation for organisations vary across industries, especially in developing nations such as South Africa (Gama et al. 2025; Marsh et al. 2022; Matsepe & Van der Lingen 2022; Sichoongwe 2023), leading to a paucity of evidence that could motivate leaders to invest in digitalisation. Digitalisation is an expensive financial investment that requires leaders to make calculated decisions and justify the benefits it could deliver before embarking on it (Faiz et al. 2024). Pessimistically, digitalisation presents challenges, while from the optimistic perspective, it is associated with opportunities for business and economic transformation if managed properly (Parker & Grote 2022).

The results of this study revealed that digitalisation significantly benefits organisations in South African manufacturing, retail and finance industries. This shows that digitalisation is not a threat but a cornerstone of sustainability and a means to achieving a competitive advantage for organisations. Thus, the perspectives of the digitalisation optimists have been strengthened. On the other hand, pessimists, those who believe it will predominantly lead to displacement and job loss, are encouraged to reconsider and accept that digitalisation is not purely risky and can be successfully undertaken for organisational development and

inclusive economic growth (Manda & Backhouse 2018), ultimately reducing production costs, attracting more customers, serving them better and increasing job opportunities. This justifies that digitalisation is a worthwhile investment. In addition, the structure of the perceived benefits of digitalisation for organisations has been validated in this study, with the rotated factor matrix loadings providing a reliable, relatively pure one-factor model. This validated scale could be used by researchers in future studies seeking to measure the perceived benefits of digitalisation for organisations derived from within specific contexts. The emergence of a one-factor model means that non-managerial employees and managers in manufacturing, retail and finance organisations perceive digitalisation benefits as an integrated outcome. Therefore, digitalisation initiatives should be treated holistically and aligned with the overall performance objective.

However, as revealed by the ANOVA results, these benefits are not experienced equally by different industries. Therefore, organisations need to move away from generic digitalisation approaches and instead pursue more tailored methods that reflect specific industry characteristics and capabilities. In manufacturing, respondents believe organisations receive less benefit from digitalisation. The literature has shown that energy instability, an ageing infrastructure, and a lack of access to advanced technologies further inhibit the transition to digital in the manufacturing industries in South Africa (Mthembu 2025). As stated by Deloitte (2023), organisations in resource-constrained environments should adopt modular or scalable digital solutions to mitigate risk and limit expense. Therefore, manufacturing organisations should focus on incremental changes through digital transformation as a primary strategy to improve operational efficiency. In the retail industry, the benefits of digitalisation for organisations are perceived moderately by respondents. Therefore, retail businesses should use omnichannel methods that combine in-store and online experience to gain a competitive edge in increasingly digitalised consumer markets (McKinsey & Company 2023; Verhoef et al. 2021). The financial industry, in which respondents perceive the highest benefits, should maintain its digital innovation leadership position by developing new digital capabilities. The government also needs to develop national programmes to help those who lack digital skills to be ready for the digital economy. Therefore, the government must work with educational institutions and businesses to create training programmes that will meet the changing needs for digital skills. In addition, the leaders of an organisation should also understand that digitalisation is not only about technology; it also represents a strategic and cultural change within the organisation. The degree of leadership support, the culture of the organisation, and the level of employee engagement are all critical factors that affect the success or failure of any digitalisation initiative (Faiz et al. 2024; Mokganya et al. 2024; Mpedi & Marwala 2025; Munsamy 2022; Schilirò 2024).

Theoretical implications and recommendations

The study provides various theoretical advancements to the RBV framework. These results confirm and support the RBV, which advocates investment in resources that drive competitive advantage for organisations. The RBV theory is hinged on the need for organisations to leverage rare, valuable, and inimitable resources because they are crucial determinants of organisational performance (Wright & Ulrich 2017). In the context of this study, digitalisation is a strategic resource that can enhance the performance of South African manufacturing, retail and finance organisations and their competitive position. Respondents demonstrated a positive perception of the benefits of digitalisation for organisations, supporting the conclusion that digital capabilities are valuable firm resources for contemporary organisations (Teece 2018). In addition, the fact that the digitalisation benefits were perceived as an overarching performance-enhancing capability aligns with the RBV's principles that competitive advantage is achieved when an organisation skilfully utilises and combines resources in an inimitable way (Wright & Ulrich 2017). By demonstrating the perceived benefits of digitalisation as a unified capability outcome, which signifies the contextual and developmental nature of resource value creation, this study extended the RBV theory.

Moreover, this study advances the RBV by demonstrating that the value of digital resources varies by industry. The study's findings reveal that the perceived value of digital resources depends on industry-specific factors such as infrastructure readiness, organisational maturity, and resource availability. The significant differences observed across industries in this study illustrate that resource endowments alone are not sufficient to produce desired performance outcomes. Instead, the successful integration and use of digital resources in specific industry environments are essential to achieving performance outcomes (World Bank 2023).

In addition, this study contributes to the growing body of literature on digital transformation by demonstrating that digitalisation is a single construct that encompasses productivity, innovation, customer engagement, and operational efficiency. This study also contributes to the existing body of knowledge by using perceptual data from both non-managerial employees and managers across multiple industries within an emerging economy. Most of the existing RBV and digital transformation literature is firm-based or focused on developed countries and lacks contextual differences in resource utilisation (OECD 2024; World Bank 2023). This study helps contextualise RBV in a setting that faces structural inequalities, digital divides and uneven technology development, such as South Africa.

Limitations and recommendations for future research

While the study helped to close the research gap, limitations should be acknowledged. Longitudinal studies in future research could be carried out to ascertain whether there is any variation over time in the digitalisation benefits and to

examine whether these uniformly positive perceptions of digitalisation benefits for organisations persist as digitalisation matures. In addition, because this study focused on JSE-listed organisations from finance, retail, and manufacturing, the small sample and the limited scope to three industries meant that it was not a true representation of the total population of South African organisations. Future research in these areas should thus use larger samples to represent the total population and increase the external validity of the findings.

Conclusion

This study demonstrated that digitalisation is perceived as beneficial for organisations and that it is best represented as a unidimensional construct, indicating that digital initiatives are experienced as holistic improvements in contexts such as South African manufacturing, retail and finance industries, where digitalisation is still evolving. This clearly indicates that digitalisation is not wholly a challenge but rather an impetus for organisations to leverage it to achieve a competitive advantage. This should increase organisational leaders' confidence to invest in digitalisation and establish and implement measures for its success. The study further indicates a clear variation between industries regarding perceptions of the overall benefit of digitalisation. The financial industry reports the highest perceived benefit from digitalisation, while manufacturing has the lowest, demonstrating that industry context significantly influences how organisations achieve digitalisation benefits. In theory, the findings contribute to existing research on the RBV, both digital technology and the skills and competencies to utilise that technology are a source of competitive advantage for organisations. Practically, the study highlights that organisations need to invest in industry-based digital transformation strategies and develop their workforce's digital capabilities.

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CRediT authorship contribution

Munodani Chapano: Writing – original draft. Amanda Werner: Writing – review & editing. All authors reviewed the article, contributed to the discussion of results, approved the final version for submission and publication, and take responsibility for the integrity of its findings.

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Data availability

The data that support the findings of this study are not openly available and are available from the corresponding author, Munodani Chapano, upon reasonable request.

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