

Visions for the Future - Theoretical Perspectives on Management

Module: (LCDB7008_LON)

“Technology advances - specifically in the areas of e-Commerce and e-Business have rendered traditional models of organisational structure and theories of management roles obsolete in the light of the changing nature of 21st century corporations.”

Evaluate whether this claim is justified - in relation to a business sector of your choice
- and provide evidence for or against it, especially in relation to the management changes it implies

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Table of Contents

1.Introduction.....	2
2.Background.....	5
3.Purpose of the Study	7
4.Literature Review.....	7
4.1Digital Business and the Obsolescence of Traditional Organisational Structures	7
4.2From Scientific Management to Algorithmic Management	9
4.3Transformation of Managerial Roles: AI, Customer Service and Remote Working.	11
4.4AI, Customer Data and the Transformation of Marketing Decision-Making.	14
5Critical Synthesis: Technological Determinism, Contingency and the Obsolescence Debate.	16
6Critical Discussion: Implications for Twenty-First-Century Retail Management.	19
7Management Changes Implied by E-Commerce and E-Business	22
8Discussion and Overall Evaluation.....	24
9Conclusion	26

1. Introduction

Advances in e-commerce and e-business have fundamentally changed how retail organisations conduct business, interact with customers and coordinate organisational activities. Digital platforms, artificial intelligence (AI), data analytics, algorithmic management and integrated information systems have reduced dependence on physical stores, face-to-face customer service, conventional supervisory arrangements and functionally separated business processes (Vial, 2019; Verhoef et al., 2021). These developments raise an important management question: Has technological transformation rendered traditional organisational structures and theories of management roles obsolete or do established management principles remain relevant but now operate through different technological mechanisms?.

This report argues that the proposition is substantially, although conditionally justified. Importantly, obsolescence is not treated as a single condition. A distinction is made between organisational structures or managerial mechanisms becoming obsolete, managerial roles being transformed, and underlying management principles remaining relevant. For example, digital monitoring has reduced reliance on direct physical supervision without eliminating managerial control; however, control may become embedded within algorithms and performance-management systems. Similarly, organisational hierarchies may become less visible without necessarily eliminating the authority, rules and accountability associated with Weberian bureaucracy. Consequently, technological replacement of a traditional managerial mechanism does not automatically demonstrate the obsolescence of the theory that explains its underlying principle.

The retail sector provides a particularly appropriate context for evaluating this distinction because e-commerce and e-business have transformed multiple organisational activities simultaneously, including sales, customer service, marketing, inventory management, logistics, workforce coordination and managerial decision-making. This report therefore critically evaluates these developments through traditional management perspectives, including Scientific Management, Administrative Theory, Bureaucratic Theory and Mintzberg's managerial roles, alongside Contingency Theory and Dynamic Capabilities Theory. Contemporary retail evidence is used to determine if aspects of traditional management are best understood as obsolete, transformed or enduring.

The central argument developed throughout the report is therefore not that technology has eliminated traditional management. Rather, e-commerce and e-business have made some traditional organisational configurations and enactments of managerial roles increasingly unsuitable while simultaneously reproducing, transforming and, in some cases, intensifying established management principles. The extent of obsolescence is consequently contingent upon organisational context, technological capability and managerial choices rather than being an inevitable consequence of technological advancement.

2. Background

The development of e-commerce and e-business represents a significant shift in how organisations create value, interact with customers and coordinate internal activities. Traditional retailing was predominantly organised around physical stores, direct customer interaction and geographically concentrated markets. Organisational activities such as purchasing, inventory management, sales, communication and supervision were often coordinated through formal managerial structures in which information moved vertically through established levels of authority. These arrangements reflected the broader industrial environment in which many classical management theories developed, where organisational efficiency was associated with specialisation, standardisation, hierarchy and managerial control (Taylor, 1911; Fayol, 1949; Weber, 1947).

The expansion of internet technologies significantly altered this model. E-commerce enabled transactions to move beyond physical stores by allowing businesses and consumers to interact through digital platforms. This development reduced geographical and temporal restrictions on commercial activity and changed customer expectations concerning convenience, product availability, price comparison and service responsiveness (Laudon and Traver, 2024). Amazon illustrates the scale of this transition: the retail transaction is no longer dependent on a customer entering a physical shop but can occur through an interconnected digital platform linking customers with payment, inventory, fulfilment and delivery systems. E-commerce has therefore changed not only where transactions occur but also the speed, scale and information intensity of contemporary retailing.

The emergence of e-business represents a deeper organisational development. Whereas e-commerce primarily transforms market transactions, e-business integrates digital technologies

across organisational processes, including procurement, supply-chain coordination, customer relationship management, inventory control, communication and decision-making (Chaffey, Hemphill and Edmundson-Bird, 2026). Digital information can increasingly move across departments and organisational boundaries without passing sequentially through traditional managerial layers. Real-time inventory systems, automated fulfilment, customer-data analytics and integrated supply-chain platforms can also perform activities previously dependent on manual information gathering and administrative coordination. Consequently, the significance of e-business extends beyond the digitalisation of buying and selling to the restructuring of how work, information and organisational relationships are coordinated.

These developments create a direct challenge to traditional assumptions about organisational structure. Hierarchical structures historically provided mechanisms for coordinating specialised work, controlling information and establishing authority and accountability. However, when digital systems provide employees and managers with real-time access to information and enable coordination across functional and organisational boundaries, some intermediate administrative roles and highly centralised information structures may become less necessary. At the same time, digitalisation does not automatically produce flat or decentralised organisations. Large digitally enabled retailers continue to require coordination, performance control, strategic direction and accountability, while digital technologies themselves can enable more intensive forms of monitoring and standardisation. Technology may therefore weaken some characteristics of traditional hierarchy while strengthening others.

This tension is central to evaluating claims of managerial obsolescence. From a technologically deterministic perspective, continued advances in e-commerce, automation and digital platforms could be expected to displace traditional structures and managerial roles. Structural Contingency Theory provides a different interpretation, suggesting that organisational structures evolve according to the interaction between technology and other contextual factors, including organisational size, strategy, environmental uncertainty and competitive conditions (Donaldson, 2001). The organisational consequences of e-business should therefore not be assumed to be uniform. A digitally native retailer and an established omnichannel retailer may use similar technologies while retaining different structural arrangements because their organisational histories, resources, strategies and operating environments differ.

The development of e-commerce and e-business therefore provides a basis for questioning the continued relevance of management approaches developed for traditional industrial

organisations. However, the central issue is not simply whether organisational structures and managerial roles have changed, but whether this change constitutes obsolescence, transformation or continuity. Examining this distinction provides the foundation for critically evaluating classical and contemporary management theories and determining whether technological advancement has eliminated traditional management principles or reconfigured their application within twenty-first-century retail organisations.

3. Purpose of the Study

The purpose of this report is to critically evaluate the extent to which advances in e-commerce and e-business have rendered traditional models of organisational structure and theories of management roles obsolete within the twenty-first-century retail sector. The analysis focuses on how the transition from traditional store-based commerce to digitally enabled and omnichannel business models has changed organisational structures, information flows, decision-making processes and managerial responsibilities.

The report critically compares classical management perspectives, including Scientific Management, Administrative Theory and Bureaucratic Theory, with contemporary perspectives such as Mintzberg's managerial roles, Drucker's knowledge-worker concept and Structural Contingency Theory. Rather than assuming that technological change automatically results in managerial obsolescence, these perspectives are used to distinguish between aspects of traditional management that have become obsolete, those that have been transformed through digitalisation, and those that continue to provide organisational value.

Using evidence from the retail sector, including digitally enabled business models and established retailers adapting to e-commerce and e-business, the report evaluates how automation, digital platforms, integrated supply chains and data-driven decision-making have altered the organisation and management of contemporary businesses. Particular attention is given to whether technology has reduced the relevance of rigid hierarchy, centralised authority and routine administrative management or has instead reproduced some traditional management principles through new digital mechanisms.

The report ultimately seeks to establish a clear judgement on whether the proposition of managerial and structural obsolescence is justified and to explain the implications of this transformation for managers operating within increasingly digital retail environments.

4. Literature Review

4.1 Digital Business and the Obsolescence of Traditional Organisational Structures

The proposition that e-commerce and e-business have rendered traditional organisational structures obsolete is most convincing where digital technologies have removed the conditions that originally made rigid hierarchy necessary. Weber's (1947) bureaucratic model emphasised clearly defined authority, specialised responsibilities, formal rules and hierarchical communication as mechanisms for achieving organisational coordination. Such arrangements were particularly suited to organisations in which information moved predominantly through formal managerial channels. E-business challenges this assumption because integrated digital systems can make operational information simultaneously available across functions, locations and organisational levels, reducing dependence on managers as intermediaries through whom information must traditionally pass.

Amazon illustrates this tension. Its e-commerce activities depend upon the digital integration of customers, inventory, warehouses, suppliers and logistics rather than the relatively isolated functional arrangements associated with traditional retail organisations. However, this does not mean that hierarchy has disappeared. Vallas, Johnston and Mommadova (2022), based on interviews with 46 Amazon warehouse workers, found that algorithmic technologies played an extensive role in coordinating and controlling labour. Their findings challenge the assumption that digitalisation necessarily produces flatter and less controlled organisations. Instead, digital technology may remove some layers of direct supervision while transferring elements of managerial authority into technological systems.

This creates a significant theoretical challenge to Weber. On one hand, digital platforms weaken traditional bureaucracy by accelerating horizontal information flows and reducing dependence on sequential hierarchical communication. On the other hand, algorithmic systems can strengthen characteristics associated with bureaucracy by formalising procedures, monitoring compliance and standardising employee behaviour. The evidence therefore suggests that what is becoming obsolete is not necessarily organisational control, but the traditional bureaucratic mechanisms through which that control was exercised. Digital businesses may consequently appear structurally flexible while simultaneously maintaining substantial centralised control through data and algorithms.

Remote working provides another challenge to traditional organisational assumptions. Digital communication, cloud-based information systems and virtual collaboration platforms allow

employees in functions such as customer service, marketing and administration to perform work without permanent physical co-location. This weakens the traditional assumption that organisational coordination and managerial supervision require managers and employees to occupy the same workplace. From Mintzberg's (1973) perspective, however, managers continue to perform interpersonal, informational and decisional roles. What has changed is the context in which these roles are exercised: information can be exchanged virtually, teams coordinated across locations and performance assessed through digitally generated information.

The emergence of remote and digitally distributed work therefore supports the obsolescence argument at the structural level more strongly than at the functional level. Traditional assumptions concerning physical proximity, vertical communication and direct supervision are increasingly inadequate for explaining digitally connected organisations. Yet coordination, authority and accountability remain necessary. This distinction is important because it demonstrates that technological advancement can render a traditional organisational form obsolete without eliminating the organisational purpose that the form originally served.

Structural Contingency Theory strengthens this interpretation. Donaldson (2001) argues that organisational effectiveness depends upon alignment between organisational structure and contextual conditions rather than adherence to one universally effective structural model. From this perspective, the rise of e-business does not imply that every retailer should become completely flat or decentralised. Instead, increasingly dynamic and information-intensive environments reduce the effectiveness of structures designed around slow, vertically controlled information flows. Digital technologies therefore create pressure for structural adaptation, but the resulting configuration depends upon organisational size, strategy, technology and operational requirements.

The literature consequently provides substantial support for the argument that e-commerce and e-business have rendered rigid, location-dependent and information-centralised organisational structures increasingly obsolete. Nevertheless, Amazon demonstrates that digitalisation does not necessarily eliminate hierarchy or managerial control. Rather, authority may migrate from visible managerial layers into less visible digital infrastructures and algorithmic systems. The critical transformation is therefore not from control to no control, but from traditional hierarchical control towards digitally mediated coordination and control.

4.2 From Scientific Management to Algorithmic Management

Taylor's (1911) Scientific Management was developed around the principle that organisational efficiency could be improved by systematically analysing work, standardising tasks and separating managerial planning from employee execution. Managers were expected to determine the most efficient methods of performing work, while employees followed prescribed procedures. Although this approach originated within the industrial economy, the growth of e-business raises an important theoretical question: **has digital technology made Taylor's management model obsolete, or has it enabled its principles to operate in a more sophisticated form?**

Evidence from contemporary e-commerce operations suggests that the answer is more complex than simple replacement. Vallas, Johnston and Mommadova's (2022) study of Amazon warehouses, based on interviews with 46 workers, identified extensive use of algorithmic technologies as mechanisms of labour control. Rather than relying exclusively on supervisors to observe employees, digital systems can collect performance information and support the monitoring of work. A study of Amazon warehouses in Poland similarly found that productivity and quality information was gathered in real time as employees scanned barcodes, with weekly performance evaluation generated from these data (Rozmysłowicz and Krzyżaniak, 2023).

This represents a significant transformation of the traditional managerial role. Under conventional Scientific Management, measurement and control were predominantly undertaken by managers and supervisors. Algorithmic management allows aspects of these responsibilities to be embedded within digital systems capable of collecting and processing performance information continuously. In this respect, the traditional supervisor as the principal observer and evaluator of routine employee performance becomes less necessary. The mechanism through which Taylorist control was historically exercised can therefore be considered increasingly obsolete.

Paradoxically, however, the underlying principles of Scientific Management appear far from obsolete. Taylor's emphasis on measurement, standardisation, productivity and managerial control is strongly reflected in algorithmically managed work. Indeed, recent research specifically examining Amazon warehouse operations in the UK argues that digital monitoring reproduces Taylorist principles through task standardisation, performance targets and algorithmic surveillance (Miao and Situ, 2026). Technology may therefore have displaced aspects of traditional Taylorist management while simultaneously creating a form of digital

Taylorism. The stopwatch and physical supervisor may be less central, but their managerial logic can be reproduced through scanners, performance data and algorithms.

This creates an important counterargument to the proposition that e-business has simply rendered traditional management theory obsolete. If Taylor's core principles remain observable in one of the world's most technologically advanced retail organisations, Scientific Management retains some explanatory relevance. However, this continuity should not be confused with unchanged application. Contemporary algorithms can process substantially more information and operate continuously, changing the scale and immediacy of performance management. Consequently, Taylor's original model is increasingly inadequate for explaining who exercises managerial control, because control may now be distributed between human managers and technological systems.

There are also limitations to replacing managerial judgement with algorithmic evaluation. Rozmysłowicz and Krzyżaniak (2023) argue, in their analysis of Amazon warehouses in Poland, that employee evaluation cannot be treated as a purely technical process because legal requirements surrounding automated decision-making preserve the importance of meaningful human intervention. This demonstrates an important boundary to managerial automation. Algorithms may measure and evaluate performance, but questions concerning fairness, context, employee wellbeing and accountability can require human judgement. Digitalisation therefore removes some traditional managerial tasks while simultaneously creating new responsibilities concerning the governance and ethical use of algorithmic systems.

The evidence consequently supports the report's obsolescence argument, but in a theoretically important way. Traditional direct supervision and exclusively human-led performance monitoring are becoming increasingly obsolete within digitally intensive e-business operations. However, Taylor's underlying principles of measurement, standardisation and control have not disappeared; they have been technologically intensified. Scientific Management therefore illustrates how a traditional management *model* can become outdated in its original form while aspects of its theoretical logic remain embedded within twenty-first-century digital organisations.

4.3 Transformation of Managerial Roles: AI, Customer Service and Remote Working.

The transformation of organisational structures through e-business has been accompanied by significant changes in managerial and employee roles. Traditional management models largely assumed that managers coordinated human employees who performed operational activities,

while managers planned, organised, directed and controlled those activities. Fayol's (1949) administrative theory reflects this distinction through its emphasis on planning, organising, commanding, coordinating and controlling. However, the increasing integration of artificial intelligence into business processes challenges this assumption because some activities previously performed by employees, and some information-processing activities supporting managerial decisions, can now be undertaken by digital systems.

Customer service provides a clear example. Traditionally, organisations depended heavily on human representatives working in stores or call centres to respond to enquiries, provide information and resolve customer problems. AI-powered conversational systems increasingly perform some of these functions. Klarna reported that during the first month of introducing its AI customer-service assistant in 2024, the system conducted approximately 2.3 million conversations, representing two-thirds of its customer-service chats, and reduced average resolution time from 11 minutes to less than two minutes. The company also reported that the system was available continuously across 23 markets and communicated in more than 35 languages. Although these figures originate from the company itself and should therefore be interpreted cautiously, they demonstrate the scale at which AI can assume customer-service activities previously dependent on human employees.

This development provides support for the obsolescence argument. If routine customer enquiries concerning payments, orders or account information can be resolved automatically and continuously, the traditional assumption that customer service necessarily requires large numbers of human representatives becomes increasingly difficult to sustain. AI therefore changes not simply the technology available to customer-service managers but the composition of the workforce they manage. From Fayol's perspective, organising and controlling remain necessary, but managers increasingly coordinate a combination of human and technological resources rather than exclusively human employees. The traditional managerial model is consequently weakened because managerial responsibility extends towards deciding which activities should be automated, when human intervention is necessary and how the performance of AI systems should be governed.

However, the Klarna experience also exposes the limitations of interpreting AI as straightforward human replacement. In 2025, Klarna's chief executive indicated that the company was again increasing the role of human customer-service workers, while acknowledging the continued efficiency benefits generated by AI. This tension is consistent

with wider research on AI-enabled customer service. Leocádio *et al.* (2024) identify potential benefits including productivity, reduced operational costs and improved customer experience, but also emphasise the importance of human–AI collaboration and responsible implementation. More recent research similarly argues that AI offers efficiency advantages but can struggle with personalised or complex interactions, creating a trade-off between automation and the human element of customer service.

The evidence therefore challenges the assumption that technological capability automatically determines organisational replacement. AI may be particularly effective where enquiries are repetitive, information-based and predictable, while complaints involving ambiguity, emotion or unusual circumstances may continue to require human judgement. Drucker's (1999) concept of the knowledge worker becomes relevant here. As technology assumes more routine information-processing activities, human contribution can increasingly shift towards problem-solving, judgement, relationship management and specialised knowledge. Rather than simply eliminating work, AI can alter which forms of human capability create organisational value.

Remote working creates a related challenge to traditional managerial roles. Digital communication and cloud-based systems allow customer-service employees, analysts and managers to access organisational information and collaborate without being permanently located within the same physical workplace. This weakens traditional reliance on direct observation and physical proximity as mechanisms of supervision. Nevertheless, managers still need to communicate objectives, coordinate dispersed employees, resolve conflict and maintain accountability. Mintzberg's (1973) interpersonal, informational and decisional roles therefore remain recognisable, but the mechanisms through which they are performed have changed. The manager increasingly operates through digital communication, real-time information and technologically mediated relationships rather than relying predominantly on face-to-face interaction.

Taken together, AI-enabled customer service and remote working provide substantial evidence that the traditional execution of managerial roles is becoming obsolete. Managers no longer necessarily supervise employees within one physical location, control all information flows or depend entirely on human workers to perform customer-facing activities. Yet the Klarna example demonstrates why this should not be interpreted as the disappearance of management. When automation reaches its limitations, organisations require human judgement and managerial decisions about where technology should and should not be used. The

transformation therefore shifts managerial value away from routine supervision towards judgement, technological governance, coordination and the management of human–AI collaboration.

This supports the report's central proposition while providing an important qualification: e-commerce and e-business have rendered important features of the traditional managerial role increasingly obsolete, but technological advancement has simultaneously created new managerial responsibilities. The contemporary manager is therefore not simply disappearing from the organisation; rather, the traditional conception of a manager supervising human employees through physical presence and hierarchical information control is becoming increasingly inadequate for explaining management within digitally enabled businesses.

4.4 AI, Customer Data and the Transformation of Marketing Decision-Making.

The impact of e-business on managerial roles extends beyond automation of operational activities to the way organisations understand customers and make marketing decisions. Traditionally, retail managers relied heavily on historical sales reports, market research, customer surveys and professional judgement to identify consumer preferences and determine promotional strategies. Contemporary e-commerce generates substantially larger volumes of behavioural data, allowing artificial intelligence and machine-learning systems to analyse customer interactions and convert them into personalised recommendations and predictions. This development challenges the traditional assumption that managers must personally interpret most customer information before marketing decisions can be made.

Amazon provides a clear example. Its personalisation technologies can use customer interactions to generate product recommendations and personalised rankings. Amazon's own documentation explains that its machine-learning personalisation systems can predict products with which particular users are likely to interact based on historical customer–product interactions. More importantly, Amazon researchers have developed customer models capable of combining heterogeneous behavioural signals to identify customer preferences and shopping intentions. Luo *et al.* (2023), for example, report that their multi-task customer model improved next-action prediction and substantially improved conversion prediction when adapted to an incentive-based recommendation task. This demonstrates that customer data are no longer used merely to describe previous purchasing behaviour; algorithms can increasingly use them to anticipate subsequent behaviour and influence what individual customers are shown.

The transformation has significant implications for traditional marketing management. Instead of presenting broadly similar advertisements and promotions to large customer segments, e-business enables retailers to personalise product rankings, recommendations and promotional offers according to individual behavioural patterns. A customer's previous purchases, searches and interactions can contribute to predictions about what that customer may be interested in next. In this sense, AI increasingly performs activities previously associated with managerial analysis: identifying patterns, segmenting customers, predicting preferences and recommending marketing actions. The traditional dependence on managers manually analysing customer information is therefore becoming increasingly obsolete.

Fayol's (1949) conception of planning and control provides an important theoretical comparison. The need to plan marketing activities has not disappeared, but the informational basis of planning has changed significantly. Algorithms can process customer information and generate recommendations at a speed and scale unavailable to traditional managers. Consequently, managers increasingly move from being the primary producers of analysis towards becoming interpreters and governors of algorithmically generated insight. This supports the wider argument that e-business has rendered aspects of the traditional managerial role obsolete even where the underlying management function remains necessary.

However, algorithmic personalisation does not remove managerial responsibility. The greater the capacity of retailers to analyse individual behaviour, the greater the potential concerns surrounding privacy, transparency and consumer autonomy. This creates a significant counterargument to unrestricted algorithmic decision-making. Managers must determine what customer information should legitimately be collected, how personalisation should be used and whether algorithmic recommendations are consistent with organisational values and regulatory requirements. The managerial task therefore moves partly from deciding which product to promote towards deciding how automated systems should be governed.

This tension is becoming increasingly significant for retailers. Current industry evidence shows that retailers want to benefit from AI-assisted shopping while retaining direct relationships with customers partly because customer data support personalisation and loyalty strategies. The strategic importance of data therefore potentially changes the source of managerial power. In traditional hierarchical organisations, managerial authority was strongly associated with formal position and control over organisational information. In digitally enabled retail, competitive advantage increasingly depends on the organisation's capacity to collect, interpret and act upon

data. Managerial authority consequently becomes more closely connected to technological capability, analytical interpretation and governance.

Drucker's (1999) knowledge-worker perspective provides a useful counterpoint to claims of complete managerial obsolescence. As algorithms become increasingly capable of routine analysis, the value of human managers may shift towards activities requiring contextual understanding, strategic judgement, creativity and ethical responsibility. Technology can therefore simultaneously reduce the need for some traditional analytical activities while increasing demand for managers capable of questioning algorithmic recommendations and determining whether technically possible actions are organisationally and ethically appropriate.

The evidence consequently supports the proposition that e-commerce and e-business have made traditional human-dominated approaches to customer analysis and marketing decision-making increasingly obsolete. However, the replacement is not simply AI taking the manager's position. Rather, decision-making is increasingly distributed between algorithms that identify patterns and generate predictions and managers who determine strategic objectives, evaluate consequences and remain accountable for organisational decisions. The transformation therefore shifts managerial value from routine information processing towards strategic interpretation, technological governance and judgement. This provides further evidence that traditional management roles are becoming obsolete in their original configuration even though the fundamental requirement for management remains.

5 Critical Synthesis: Technological Determinism, Contingency and the Obsolescence Debate.

The preceding literature demonstrates substantial changes in organisational structure, managerial control, customer service and decision-making arising from e-commerce and e-business. However, establishing that technology has changed organisations does not by itself prove that traditional management models are obsolete. The deeper theoretical question concerns causality: does technological advancement inevitably make traditional organisational arrangements obsolete, or does its impact depend on how organisations choose to adopt and integrate technology? This distinction exposes a tension between technological determinism and Structural Contingency Theory.

A technologically deterministic interpretation assumes that technological advancement drives predictable changes in organisational structures and managerial roles. The evidence considered in this review initially provides support for this position. Digital platforms have reduced dependence on physical retail locations; remote-working technologies have weakened the requirement for physical co-location; algorithmic management has reduced dependence on direct human supervision; AI can perform routine customer-service activities; and customer analytics can undertake elements of marketing analysis and personalisation previously dependent on human judgement. Viewed collectively, these developments suggest that technological capability is progressively displacing organisational arrangements associated with traditional management.

Yet empirical evidence challenges the assumption that technological change necessarily produces one particular organisational form. Early qualitative research involving ten e-commerce companies found that conventional functional structures remained common even as firms recognised the potential value of matrix structures for e-commerce (Periasamy *et al.*, 2002). Similarly, a case study examining the organisational location of e-commerce activities found that centralisation was more appropriate for the organisation studied, demonstrating that digitalisation does not automatically require decentralisation (Ozaki and Vasconcellos, 2011). These findings weaken a deterministic assumption that e-business inevitably produces flatter or decentralised organisations.

Structural Contingency Theory offers a stronger explanation for these differences. Donaldson (2001) argues that organisational effectiveness depends upon achieving alignment between organisational structure and contextual conditions. Applied to e-business, the implication is that technology represents an important contingency but does not independently determine organisational structure. Research on e-retailers similarly demonstrates that organisational and environmental factors influence decisions concerning information-system sourcing and value-chain configuration, reinforcing the importance of organisational context in determining how digital technologies are deployed (Tsai, Raghu and Shao, 2013). Digital transformation should therefore be understood as an interaction between technological capability and factors such as organisational strategy, size, resources, workforce capabilities and competitive conditions.

This perspective also helps explain apparent contradictions identified throughout the literature review. Amazon demonstrates that a highly digital organisation can simultaneously use technologically sophisticated systems and retain strong mechanisms of control. AI customer

service can reduce reliance on human representatives for routine enquiries while increasing the importance of human judgement for complex interactions. Remote working can decentralise the location of employees while digital performance systems enable managers to monitor work from a distance. Similarly, AI-supported marketing can decentralise access to customer information while concentrating significant analytical capability within organisational algorithms. Digitalisation therefore does not move organisations consistently from centralisation to decentralisation, hierarchy to flatness, or human management to technological management. Instead, these characteristics can coexist.

This presents an important challenge to the report's argument that traditional management models are becoming obsolete. If hierarchy, measurement, planning and control remain observable within digital organisations, it could be argued that traditional management has merely acquired new technological tools. However, such an interpretation underestimates the significance of the transformation. Taylor's manager personally observing and measuring work, Weber's vertically organised information flows and the traditional assumption that managers predominantly coordinate employees through physical organisational structures no longer adequately describe many contemporary e-business operations. The continued existence of control does not mean that traditional mechanisms of control remain unchanged. Similarly, the persistence of planning does not mean that planning remains exclusively dependent upon human information processing and managerial judgement.

The distinction between management principles and management models is therefore critical. Fundamental organisational requirements including coordination, planning, accountability and control have not become obsolete because organisations continue to require them. What e-commerce and e-business have increasingly rendered obsolete are traditional organisational configurations and assumptions concerning how, where and by whom these functions must be performed. Algorithms can participate in control and decision-making, employees can work across geographical boundaries, digital platforms can coordinate activities across organisational boundaries, and information can increasingly bypass conventional managerial channels.

Consequently, the literature provides substantial, although not absolute, support for the proposition that technological advances in e-commerce and e-business have rendered traditional organisational structures and theories of management roles increasingly obsolete. Structural Contingency Theory prevents this conclusion from becoming technologically

deterministic: the extent of obsolescence varies according to organisational circumstances rather than following automatically from technology adoption. Nevertheless, the cumulative evidence indicates that traditional management models based predominantly on rigid hierarchy, physical proximity, human-centred information processing and direct supervision are increasingly inadequate for explaining how digitally enabled retail organisations operate. Their underlying objectives may persist, but the traditional models through which those objectives were achieved are progressively being displaced by digitally mediated forms of organising and managing.

6 Critical Discussion: Implications for Twenty-First-Century Retail Management.

The literature reviewed demonstrates that e-commerce and e-business have changed more than the channels through which retailers sell products. Their more significant organisational impact lies in the integration of customer interfaces, inventory, fulfilment, supply chains, employee performance and managerial information within digital systems. Research on omnichannel retailing similarly shows that effective digital transformation requires organisational and IT changes rather than simply adding an online sales channel (Castaldo and Grosso, 2020). More recent research also demonstrates that retailers can adopt similar omnichannel strategies but experience different transformation outcomes because successful implementation depends on how organisational capabilities and routines are coordinated (Blumenstein et al., 2026). This supports the argument that the impact of e-business should be assessed at the level of organisational design and management, rather than solely through technological adoption.

A significant implication is the declining suitability of organisational structures built around strict functional separation. Traditional retail could organise stores, marketing, inventory and distribution as relatively distinct activities. Omnichannel retailing makes such separation increasingly problematic because a transaction initiated through one channel may depend on resources controlled through another. For example, a customer may identify a product through a mobile application, purchase it online, collect it from a physical store and subsequently return it through another channel. Ishfaq et al. (2022) argue that digital retail supply chains increasingly operate as ecosystems in which information, inventory and fulfilment activities must be coordinated across interconnected actors and channels. The managerial challenge consequently shifts from controlling isolated functional units towards coordinating interdependent processes.

This provides stronger support for the obsolescence of rigid traditional structures than merely observing that retailers now use websites. If marketing, sales, inventory and logistics must exchange information continuously, structures designed around vertically separated departments can create barriers to the speed and integration required by e-business. However, this does not mean that functional expertise becomes unnecessary. Rather, the traditional organisational boundaries separating functions become less compatible with digitally integrated retailing. Management consequently moves towards cross-functional coordination, integrated information and shared responsibility for the customer journey.

The same transformation can be observed in managerial decision-making. Traditional management models positioned managers as important collectors, interpreters and distributors of organisational information. E-business reduces this informational monopoly because integrated systems can provide employees and managers with real-time information concerning sales, inventory, customer behaviour and operational performance. AI further extends this transformation by identifying patterns and generating predictions from volumes of information that would be difficult for individual managers to process manually. The traditional manager whose authority partly derives from possessing and transmitting information therefore becomes less relevant where information is digitally accessible.

Nevertheless, this creates a new managerial problem rather than eliminating management. Greater access to information does not guarantee better decisions. Managers must assess the quality of data, challenge algorithmic recommendations and determine how technological insights should influence organisational strategy. Drucker's (1999) emphasis on knowledge work therefore becomes particularly relevant: managerial value increasingly lies not in possessing information that subordinates do not have, but in interpreting knowledge and applying judgement. This represents an important transition from information control towards information interpretation.

A similar tension arises in the relationship between automation and managerial control. The earlier analysis of algorithmic management demonstrated that technology can perform aspects of monitoring and performance measurement traditionally undertaken by supervisors. This appears to support the proposition that traditional supervisory roles are becoming obsolete. Yet it also demonstrates that digitalisation does not necessarily create less-controlled organisations. Algorithmic systems can standardise work, measure performance and enforce organisational expectations continuously. Consequently, Taylor's (1911) emphasis on efficiency and

measurement remains visible even when the traditional supervisor is partially displaced by technology. What becomes obsolete is therefore increasingly the human-centred mechanism of routine supervision, rather than the organisational pursuit of efficiency and control.

The emergence of omnichannel retailing further demonstrates why technological transformation cannot be interpreted as complete replacement of traditional business. Physical stores continue to coexist with digital platforms, but their function increasingly forms part of an integrated customer journey. Research on omnichannel retailing emphasises that integration across channels and customer touchpoints is central to creating a seamless experience (Castaldo and Grosso, 2020). Recent empirical research similarly associates omnichannel adoption and the use of data at scale with improvements in customer experience and operational performance. The persistence of physical stores therefore does not disprove the obsolescence argument; rather, it demonstrates that traditional retail assets can survive by being incorporated into a fundamentally different business model.

The cumulative implication for management is therefore significant. E-commerce has challenged traditional assumptions about where commercial transactions must occur, while e-business has challenged assumptions about where employees must work, how information must flow, how customers must be served, how performance must be monitored and how managerial decisions must be made. Traditional management models become increasingly inadequate when they assume physical proximity, vertically controlled information, exclusively human supervision and clearly separated organisational functions.

However, the strongest conclusion is not that twenty-first-century organisations no longer require management. Rather, the way management was traditionally organised and practised has become increasingly obsolete because the conditions upon which those practices depended have changed. Contemporary managers increasingly coordinate networks rather than isolated functions, interpret digitally generated information rather than monopolise it, govern AI alongside managing employees, and exercise control through technological as well as interpersonal mechanisms. The rise of e-commerce and e-business has therefore not removed the managerial purpose of planning, coordination and control; it has substantially altered the organisational model through which those purposes are achieved.

7 Management Changes Implied by E-Commerce and E-Business

The organisational changes associated with e-commerce and e-business require a corresponding reconsideration of what managers contribute to contemporary retail organisations. If digital systems increasingly perform routine monitoring, information processing, customer interaction and elements of operational decision-making, managerial value can no longer depend predominantly on supervising employees, controlling information and administering established procedures. Instead, managers increasingly operate as coordinators of interconnected processes, interpreters of data, facilitators of organisational change and governors of relationships between employees and technology.

One important change concerns decision-making authority. Traditional hierarchical structures generally concentrated information and decision-making at managerial levels, partly because managers occupied formal positions through which organisational information was collected and communicated. E-business systems weaken this informational advantage by making operational data available across organisational functions in real time. The managerial role consequently shifts from controlling access to information towards determining how information should be interpreted and translated into organisational action. This challenges the traditional conception of the manager as the principal information holder while strengthening the importance of judgement, strategic interpretation and accountability.

A second change concerns cross-functional coordination. Omnichannel retailing requires the integration of activities that were traditionally managed more independently. Effective omnichannel transformation therefore depends upon the integration of information, processes and organisational capabilities across retail channels (Castaldo and Grosso, 2020; Blumenstein et al., 2026).

Similarly, Ishfaq et al. (2022) conceptualise digital retail supply chains as interconnected ecosystems rather than isolated sequences of activities. Managers therefore increasingly need to coordinate relationships across marketing, technology, logistics, customer service and supply-chain functions. The traditional functional manager remains relevant, but managerial effectiveness increasingly depends upon the ability to operate beyond rigid departmental boundaries.

This change provides an important challenge to Fayol's (1949) Administrative Theory. Fayol's functions of planning, organising, coordinating and controlling remain recognisable, but the

organisational environment in which they are performed has changed substantially. Planning increasingly draws on real-time data; organising involves technological as well as human resources; coordination crosses functional and organisational boundaries; and control may be partly exercised through digital systems. Thus, the persistence of Fayol's functions does not invalidate the obsolescence argument. Rather, it suggests that the traditional managerial configuration through which these functions were exercised has become inadequate, even where the functions themselves remain necessary.

A third change concerns continuous organisational adaptation. E-commerce is not a one-off technological implementation in which an organisation establishes a website and subsequently returns to organisational stability. Digital retail requires continuing adjustment of customer channels, fulfilment systems, information processes and organisational routines. Recent multi-case research involving six retailers and 26 semi-structured interviews found that organisations pursuing similar omnichannel ambitions achieved different outcomes because they differed in how effectively they coordinated and developed routines for sensing opportunities, seizing them and transforming organisational activities over time. This finding is important because it demonstrates that technology alone does not produce successful transformation.

Dynamic Capabilities Theory provides a useful explanation of this requirement. The contemporary manager must contribute not only to maintaining organisational efficiency but also to identifying technological opportunities, reallocating resources and supporting organisational adaptation. This contrasts with traditional management assumptions developed primarily around maintaining efficiency and stability within established organisational arrangements. The managerial emphasis therefore shifts from administering stability towards managing continuous transformation.

However, this does not mean that contemporary management should reject efficiency, standardisation and control. Digital retail creates a paradox in which organisations require both agility and discipline. Customer preferences and technologies can change rapidly, requiring experimentation and responsiveness, while large-scale fulfilment, data protection, financial control and service consistency require standardised processes and accountability. Contemporary research on digital retail work similarly identifies competing possibilities of job displacement, job enrichment and intensified digital Taylorism rather than one uniform consequence of technological adoption. The effective digital manager must therefore balance flexibility with control rather than simply replacing one with the other.

A further implication concerns managerial capability. Managing digital organisations requires more than technical competence. Managers need sufficient understanding of data and AI to challenge technological recommendations, while retaining interpersonal judgement, ethical awareness and strategic perspective. Drucker's (1999) emphasis on knowledge work consequently becomes particularly relevant. As routine information-processing activities become increasingly automated, managerial contribution becomes more dependent on the ability to interpret knowledge, manage specialised expertise and make decisions under conditions that technology cannot resolve independently.

These changes substantially support the proposition that traditional theories of managerial roles have become increasingly inadequate as complete explanations of contemporary management. The manager defined predominantly by hierarchical position, information control, physical supervision and functional authority is progressively less suited to digitally integrated retail organisations. However, the managerial role has not disappeared. It has moved towards cross-functional coordination, strategic interpretation, technological governance, continuous adaptation and accountability for decisions increasingly shared between humans and digital systems.

The management implication is therefore not simply that managers must “use more technology.” Rather, e-commerce and e-business require a different conception of managerial effectiveness. Managers must be capable of integrating physical and digital operations, coordinating specialist knowledge across organisational boundaries, governing automated systems and adapting organisational routines as technologies and customer expectations change. Evidence that retailers with similar omnichannel ambitions achieve substantially different outcomes reinforces this conclusion: technology creates the possibility of transformation, but management determines how effectively that possibility is converted into organisational capability.

8 Discussion and Overall Evaluation

The evidence reviewed in this report substantially supports the proposition that advances in e-commerce and e-business have rendered traditional models of organisational structure and management roles increasingly obsolete within the retail sector. However, the significance of this conclusion lies not simply in the replacement of physical retail by online shopping, but in the deeper organisational changes required to support digitally integrated business. Omnichannel research demonstrates that effective digital retailing requires organisational

change, IT integration and coordination across previously separated operations rather than merely the addition of an online sales channel.

The strongest evidence of obsolescence concerns assumptions underlying traditional organisational design. Weberian hierarchy was developed around formal authority, specialised responsibilities and vertically organised coordination. Yet contemporary e-business requires information to move rapidly between marketing, customer service, inventory, logistics and digital platforms. Omnichannel retailing therefore creates pressure for greater integration across organisational boundaries. Nevertheless, hierarchy has not disappeared. This indicates that digitalisation has made rigid hierarchical configurations increasingly inadequate, rather than eliminating organisational authority and accountability altogether.

A similar conclusion emerges from Scientific Management. Taylor's traditional model depended heavily on managers designing, measuring and supervising work. Contemporary algorithmic management demonstrates that aspects of these activities can now be embedded within technological systems. Evidence from Amazon warehouses shows how algorithmic technologies can be used extensively for labour control and performance management. Paradoxically, therefore, digitalisation challenges Taylor's traditional supervisory model while preserving—and potentially intensifying Taylorist principles of measurement, standardisation and control. This demonstrates why technological transformation should not be confused with the disappearance of management theory: the method may become obsolete while the underlying managerial principle survives in digital form.

The transformation of managerial roles reinforces this judgement. AI-enabled customer service, automated analysis of customer behaviour, personalised recommendations and digitally mediated remote working reduce reliance on managers and employees for some routine activities. Managers increasingly operate alongside technological systems rather than exclusively through human subordinates. Their contribution consequently shifts towards interpreting information, coordinating interconnected activities, exercising judgement and governing the organisational use of technology. In this respect, Fayol's fundamental functions of planning, organising and controlling remain identifiable, while Mintzberg's informational and decisional roles and Drucker's emphasis on knowledge work retain relevance. What has weakened is the traditional assumption that these functions must be performed through physical supervision, centralised information and predominantly human-led processes.

However, Structural Contingency Theory prevents this conclusion from becoming technologically deterministic. Digital technology does not impose an identical structure on every retailer. Omnichannel research shows that transformation requires organisational adaptation and integration, meaning technological capability alone is insufficient. The extent to which traditional structures become obsolete therefore depends on organisational strategy, scale, capabilities and operational requirements.

Overall, the claim is substantially justified, but it must be interpreted precisely. E-commerce and e-business have rendered many traditional organisational configurations and conventional ways of performing managerial roles increasingly obsolete. They have not rendered management itself obsolete. Instead, twenty-first-century retail demonstrates a movement from physical and hierarchical coordination towards digitally integrated, data-driven and technologically mediated management. The enduring challenge for managers is therefore no longer whether digital transformation should occur, but how human judgement, organisational accountability and technological capability should be combined to manage increasingly digital businesses effectively.

9 Conclusion

This report critically evaluated the proposition that advances in e-commerce and e-business have rendered traditional models of organisational structure and theories of management roles obsolete within the retail sector. The evidence demonstrates that technological change has fundamentally altered how retailers coordinate activities, interact with customers, manage information and organise managerial work. However, these changes do not support a simple conclusion that traditional management has become obsolete.

The proposition is therefore substantially justified. Certain traditional organisational structures and managerial mechanisms have become increasingly obsolete, particularly those dependent on rigid functional separation, physical supervision, sequential information flows and managers acting as the principal controllers of organisational information. E-commerce, AI, algorithmic management, integrated digital platforms and omnichannel retailing increasingly provide alternative mechanisms through which these activities can be performed.

However, the underlying principles associated with traditional management theories have proved more enduring. Taylorist measurement and control, for example, have not disappeared but can be intensified through algorithmic performance management. Similarly, Weberian hierarchy has become less visible as authority and control are embedded within digital systems,

while Fayol's functions of planning, organising, coordinating and controlling remain important despite being technologically mediated. Technology has therefore transformed the enactment of many traditional management principles rather than invalidated the principles themselves.

The extent of obsolescence is also contingent upon organisational context. Digital technologies create opportunities for decentralisation, automation and greater organisational agility, but they do not determine a single organisational outcome. Retailers make different structural and managerial choices according to their strategies, technological capabilities, existing structures and operational requirements. Consequently, digitally enabled organisations may simultaneously exhibit agility and discipline, decentralisation and control, and automation and human judgement.

Overall, the evidence suggests that the impact of e-commerce and e-business is best understood through three outcomes: some traditional mechanisms have become obsolete, many managerial roles and practices have been transformed, while fundamental management principles remain enduring. The twenty-first-century retail management style has therefore not become obsolete but operates differently, increasingly combining technological capability with strategic judgement, coordination and human accountability. The assignment proposition is consequently most convincing when applied to traditional organisational forms and mechanisms, but considerably less convincing when interpreted as the wholesale obsolescence of traditional management theory

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