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THEME:

Analyzing The Implementation Of The Sales Digitalisation Project In The Parapharmaceutical Industry

Case Of : TEMARA BIO COSM

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Dedication

This journey would not have been possible without the love, support, and encouragement of so many incredible people.

To my family

your unwavering belief in me has been my foundation.

To my mentors and teachers

your wisdom and guidance shaped my path.

To my friends

your laughter and loyalty kept me going even on the toughest days.

And to those who,

in big and small ways, pushed me to keep striving for greatness

this is for you.

May my efforts honor the faith you’ve placed in me."

Acknowledgement

Words cannot fully capture the depth of my gratitude, but I will try.
To everyone who stood by me,

offered a helping hand,

or simply believed in me when I doubted myself

thank you.

Your kindness has been my strength,

your advice my compass,

and your presence my motivation.

Whether through a word of encouragement,

a moment of patience,

or a shared triumph,

you have made this journey meaningful.

I am eternally grateful for your role in my life and accomplishments.

My supervisors

My parents

My brothers

This is not just my success—it is ours.

List of abbreviations

1. **a2BCMF** - a2B Change Management Framework
2. **ADKAR** - Awareness, Desire, Knowledge, Ability, Reinforcement (Change Management Model)
3. **AI** - Artificial Intelligence
4. **ANPP** - Algerian National Agency of Pharmaceutical Products
5. **AR** - Augmented Reality
6. **CDO** - Chief Digital Officer
7. **CEM** - Customer Experience Management
8. **CRM** - Customer Relationship Management
9. **ELT** - Extract, Load, Transform
10. **ERP** - Enterprise Resource Planning
11. **IoT** - Internet of Things
12. **IT** - Information Technology
13. **ITU** - International Telecommunication Union
14. **KPI** - Key Performance Indicator
15. **MIS** - Management Information Systems
16. **NIM** - Not specified (appears in a citation)
17. **NPS** - Net Promoter Score
18. **PMBOK** - Project Management Body of Knowledge
19. **PPC** - Pay-Per-Click

20. **RBDTF** - Relationship-Based Digital Transformation Framework
21. **ROI** - Return on Investment
22. **SaaS** - Software as a Service
23. **SSRN** - Social Science Research Network
24. **VR** - Virtual Reality
25. **WHO** - World Health Organization

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Summary

This research explores the **digital transformation of sales processes** in Algeria's **parapharmaceutical sector**, focusing on TEMARA BIO COSM. It examines the challenges and benefits of adopting digital tools (CRM, e-commerce, analytics) in a regulated industry. The study combines theoretical frameworks (e.g., change management, project methodologies) with empirical data from surveys and interviews. Key findings highlight:

Operational efficiency gains (faster order processing, better customer engagement).

Employee resistance due to skill gaps and workflow changes.

Strategic recommendations for phased implementation, training, and stakeholder alignment.

The thesis concludes that digitalization is essential for competitiveness but requires tailored approaches to address Algeria's unique market and regulatory constraints.

ملخص

تهتم هذه الدراسة على **التحول الرقمي لعمليات المبيعات في القطاع الشبه الصيدلاني** الجزائري، وذالك بدراسة حاة تطبيقية لشركة (تمارة بيو كوسم). بإستكشف التحديات والفوائد الناتجة عن تبني الأدوات الرقمية (مثل أنظمة إدارة العلاقات مع العملاء، التجارة الإلكترونية،و مستخرجاتهما) في صناعة خاضعة للتنظيم. تجمع الدراسة بين الأطر النظرية (مثل إدارة التغيير ومنهجيات المشاريع) والبيانات الميدانية من الاستبيانات والمقابلات. أبرز النتائج:

تحسين الكفاءة التشغيلية (معالجة أسرع للطلبات، تفاعل أفضل مع العملاء).

مقاومة الموظفين بسبب فجوات المهارات والتغييرات في سير العمل.

توصيات استراتيجية للتطبيق التدريجي، التدريب، وتوافق أصحاب المصلحة.

يخلص بحثنا إلى أن الرقمنة ضرورية للتنافسية لكنها تتطلب حلولاً محددة تتناسب مع السوق الجزائرية والقيود التنظيمية.

Résumé

Cette recherche analyse **la transformation digitale des processus de vente dans le secteur paraparmaceutique** algérien, en se concentrant sur TEMARA BIO COSM. En examinant les défis et avantages de l'adoption d'outils digitaux (CRM, e-commerce, analytique) dans un secteur réglementé. L'étude combine des cadres théoriques (gestion du changement, méthodologies de projet) avec des données empiriques (enquêtes, entretiens). Principaux résultats :

Gains d'efficacité opérationnelle (traitement plus rapide des commandes, meilleure interaction client).

Résistance des employés due aux écarts de compétences et changements organisationnels.

Recommandations stratégiques pour une mise en œuvre progressive, la formation et l'alignement des parties prenantes.

La recherche conclut que la digitalisation est une obligation commercial pour la compétitivité, mais nécessite des approches adaptées au marché et à la réglementation algériens

General introduction

Throughout the past decade, the business landscape has undergone remarkable transformations, driven by technological advancements that continue to reshape traditional practices. The parapharmaceutical and parapharmaceutical sectors, traditionally known for their conservative approaches, are experiencing unprecedented pressure to embrace digital innovation, particularly in their sales operations. This transformation has become increasingly vital as healthcare professionals and consumers alike demand more sophisticated, efficient, and accessible ways of engaging with parapharmaceutical companies.

The Algerian parapharmaceutical market presents a unique context for studying digital transformation initiatives. With an estimated market value exceeding $4 billion and growing at approximately 10% annually, the sector faces distinctive challenges in modernizing its sales approaches. Local parapharmaceutical companies must navigate complex regulatory requirements while meeting the evolving expectations of healthcare providers and patients. The traditional sales model, heavily reliant on face-to-face interactions and paper-based processes, increasingly shows limitations in scalability, efficiency, and data utilization.

Digital transformation in parapharmaceutical sales represents more than mere technological adoption; it embodies a fundamental shift in organizational culture, operational processes, and strategic thinking. Companies must carefully orchestrate this transition, considering various stakeholders' needs while maintaining compliance with industry regulations. The management of such transformation projects requires a delicate balance between innovation and stability, speed and careful planning, technological capability and human factors.

The complexity of implementing digital sales solutions in the parapharmaceutical sector stems from multiple factors. Organizations must address challenges ranging from regulatory compliance and data security to change resistance and skill gaps among employees. Moreover, the significant investment required for digital transformation initiatives demands robust project management approaches to ensure successful implementation and meaningful returns on investment.

Within this context, several critical issues emerge that warrant careful examination. The first concerns the methodological approach to implementing digital sales solutions in parapharmaceutical companies. While many organizations recognize the need for digital transformation, they often struggle with systematic implementation approaches that balance technological innovation with organizational readiness. Legacy systems, established workflows, and existing customer relationships must be carefully considered and preserved where valuable, while new digital capabilities are integrated seamlessly into the organization's operations.

Another pressing challenge involves the management of change at both organizational and individual levels. The introduction of digital sales tools fundamentally alters how sales teams operate, requiring new skills, different performance metrics, and modified customer engagement approaches. This transformation affects not only sales representatives but also managers, support staff, and ultimately, the entire organizational structure. Understanding how to navigate this change while maintaining operational efficiency and employee engagement becomes paramount.

The parapharmaceutical sector's highly regulated nature adds another layer of complexity to digital transformation initiatives. Companies must ensure that new digital sales approaches comply with stringent regulatory requirements while still delivering improved efficiency and customer value. This includes considerations around data privacy, medical information sharing, and marketing compliance – all of which must be carefully integrated into any digital sales solution.

Motivation for Undertaking This Research

The decision to pursue this research on the implementation of sales digitalization in the parapharmaceutical sector-specifically in the case of TEMARA BIO COSM-was shaped by a combination of academic, professional, and personal motivations, each rooted in the evolving realities of the industry and the broader context of digital transformation.

1. Academic Curiosity and Sectoral Relevance

As a student of management and entrepreneurship, I have been consistently drawn to the intersection of technological innovation and organizational change. The parapharmaceutical industry, with its unique blend of regulatory complexity, customer-centricity, and rapid growth in Algeria, presents a compelling context for examining how digitalization can reshape traditional business models. The lack of extensive local research on digital sales transformation in this sector further motivated me to contribute original insights that could inform both academic discourse and practical application.

2. Professional Development and Career Aspirations

Digital transformation is not only a global trend but also a critical skillset for future leaders in management. By immersing myself in the study of sales digitalization, I aimed to deepen my understanding of project management, change leadership, and technology adoption-competencies that are increasingly demanded in today's job market. This research provided a unique opportunity to engage directly with real-world challenges, collaborate with industry professionals, and develop expertise that will be invaluable in my future career, whether in consulting, corporate management, or entrepreneurship.

3. Personal Connection to the Case Study

TEMARA BIO COSM, as a leading family care company in Algeria, represents both a national success story and a microcosm of the broader challenges facing local enterprises in the digital era. My personal interest in this company stems from its reputation for innovation and its willingness to pioneer digital solutions despite market and regulatory constraints. By focusing on a local case, I sought to produce research that is not only academically rigorous but also contextually relevant and impactful for Algerian businesses.

4. Desire to Address Practical Challenges

Through preliminary discussions with industry practitioners and a review of the literature, I recognized that many organizations in the parapharmaceutical sector struggle with the practicalities of digital transformation-ranging from employee resistance and skill gaps to regulatory compliance and ROI measurement. My motivation was to bridge the gap between theory and practice by providing actionable recommendations that could help companies overcome these barriers and realize the full benefits of digitalization.

Research Objectives

This thesis aims to investigate the process of implementing digital sales transformation projects within the parapharmaceutical industry, with a particular focus on the Algerian market. The primary objective is to understand how companies can effectively manage the shift from traditional to digital sales systems, while ensuring operational performance, employee adoption, and market competitiveness.

Specifically, this research seeks to:

1. Identify and analyze the key operational and organizational factors influencing the success of digital sales transformation in parapharmaceutical companies.
2. Examine the role of employee resistance and the effectiveness of change management strategies in supporting the transition to digital tools.
3. Evaluate the impact of digital sales tools on overall performance indicators, including sales productivity, customer interaction, and internal efficiency.

Research Questions

The central question guiding this research is: **"How can parapharmaceutical companies effectively manage the implementation of digital sales transformation projects?"** This overarching question encompasses several specific areas of inquiry:

1. To what extent does employee resistance influence the adoption of digital sales tools in parapharmaceutical companies?
2. How do digital sales tools impact operational efficiency and customer engagement within the company?
3. What role do management support play in overcoming resistance and improving the ROI of digitalization?

Hypothesis

H1: Implementing strategies such as employee involvement, comprehensive training, transparent communication, and peer support significantly reduces employee resistance and increases the adoption of digital sales tools in parapharmaceutical companies.

H2: The use of digital sales tools (e.g., CRM systems, mobile applications, AI analytics) leads to measurable improvements in operational efficiency and customer engagement, especially when digital strategies are continuously adapted to customer needs.

H3: Strong and active management support—including visible leadership, resource allocation, continuous feedback, and recognition—significantly lowers employee resistance and increases both the adoption rate and the return on investment (ROI) of digitalization initiatives in parapharmaceutical companies.

Methodology

This research adopts a comprehensive methodological approach combining theoretical analysis with practical investigation through a detailed case study. The selection of this

methodology stems from the complex nature of digital transformation projects in the parapharmaceutical sector, where multiple variables and stakeholders interact within a regulated environment.

The research design employs a qualitative approach, supplemented by quantitative elements where appropriate, to provide a rich understanding of the digital transformation process. This mixed-method approach allows for a thorough examination of both the technical and human aspects of digital sales implementation, capturing the nuances of organizational change alongside measurable project outcomes.

Data Collection Framework

The data collection strategy is multi-layered, ensuring depth and breadth:

Primary Data:

Semi-structured interviews with project managers, sales and HR team members, IT specialists, and senior management, exploring strategic decisions, operational challenges, and change management practices.

Direct observation of digital tool implementation, training sessions, and day-to-day sales operations, documenting real-time adaptation and resistance.

Internal documentation analysis, including project plans, risk assessments, progress reports, and performance metrics, to validate and contextualize interview and observational data.

Secondary Data:

Industry reports and regulatory documents to situate the case study within broader sectoral trends and compliance requirements.

Academic literature on digital transformation, project management, and change management, providing theoretical grounding and comparative perspectives.

This framework ensures that the research captures both the lived experience of digitalization and its measurable impacts.

Analytical Framework

The study employs a systematic analytical framework that integrates thematic analysis with project management evaluation:

Thematic Analysis:

All qualitative data (interviews, observations, documents) are coded and organized into nodes and themes using NVivo-style qualitative analysis. This process identifies recurring patterns, challenges, benefits, and stakeholder responses throughout the digitalization journey.

Project Management Evaluation:

The research assesses planning, execution, risk management, and resource allocation strategies, focusing on how these factors influence project outcomes. Key performance indicators (KPIs) such as sales productivity, customer engagement, and operational efficiency are used to measure the effectiveness of digital transformation.

Triangulation:

Findings from different data sources and analytical methods are cross-validated to ensure reliability and to highlight both convergent and divergent perspectives.

Research Scope

The research scope is carefully delineated to ensure relevance and manageability:

Sectoral Focus:

The study centers on the parapharmaceutical industry in Algeria, with TEMARA BIO COSM as the focal case.

Project Management and Organizational Change:

Emphasis is placed on the management of digital sales transformation projects, including technology integration, change management, and compliance.

Stakeholder Perspectives:

The analysis incorporates views from multiple organizational levels and functions, capturing the full spectrum of experiences and challenges.

Limitations

Despite its comprehensive design, the research acknowledges several limitations:

Generalizability:

As a single-case study, findings may not be universally applicable across all Algerian parapharmaceutical firms, though they offer valuable transferable lessons.

Data Access and Quality:

The depth of analysis may be constrained by the availability and candor of internal documentation and participant responses.

Pace of Technological Change:

Rapid advancements in digital tools may render some findings time-bound, necessitating ongoing research to remain current.

Regulatory and Market Specificity:

The Algerian context, with its unique regulatory and infrastructural environment, may limit the direct applicability of results to other markets.

This thesis provides a detailed, methodologically rigorous examination of sales digitalization in the Algerian parapharmaceutical sector, grounded in real-world data and framed by established analytical models. It aims to bridge the gap between theory and practice, offering both scholarly insights and practical recommendations for managing digital transformation in complex, regulated industries.

CHAPTER 1: FRAMEWORK OF SALES DIGITALIZATION

CHAPTER 1: FRAMEWORK OF SALES DIGITALIZATION

Introduction

The digitalization of sales practices represents one of the most significant paradigm shifts in contemporary business operations – a transformation that continues to redraw the boundaries between traditional commerce and technology-mediated exchange. This chapter seeks to interrogate the theoretical underpinnings of this phenomenon, situating current developments within broader historical trajectories while acknowledging the particularities of emerging market contexts. The Algerian case offers a compelling vantage point from which to examine how digital sales transformations manifest in markets characterized by distinct regulatory environments and infrastructure challenges. As we navigate through evolving sales methodologies, examine the proliferation of digital tools, consider project management imperatives, and assess Algeria's digital readiness, this chapter constructs a conceptual architecture that supports both theoretical understanding and practical application. The frameworks presented herein aim not merely to catalogue technological innovations but rather to provide analytical scaffolding for interpreting the complex interplay between digital affordances and sales practice transformation.

CHAPTER 1 :FRAMEWORK OF SALES DIGITALIZATION

Section 1.1: Evolution of Sales Processes

Sales methodologies have undergone remarkable transformation – from the merchant traditions of antiquity to today's algorithm-driven customer engagements. This section traces these evolutionary pathways, examining not only what has changed but also which fundamental principles have demonstrated surprising resilience. The persistence of relationship-centered approaches alongside the emergence of data-intensive sales practices presents a fascinating contradiction that warrants careful examination. Traditional face-to-face selling techniques, once the unquestioned foundation of commercial exchange, now exist in productive tension with digital methodologies that promise unprecedented efficiency and reach. By historically contextualizing contemporary sales practices, we better appreciate how technological innovations have reconfigured – rather than replaced – enduring principles of customer engagement and value articulation. This historical perspective proves especially valuable when considering how organizations might navigate future disruptions in an increasingly digital marketplace.

1. Traditional Sales Methods

Sales methodologies have evolved through history by focusing on personal interaction and relationship building because salespeople used to depend mainly on face-to-face meetings to build trust with potential customers. Traditional sales methods focused on delivering personalized service while building enduring relationships because salespeople functioned as the main source of product and service information for their customers. Traditional sales methods succeeded based on the individual sales representative's skills in interpersonal communication and product expertise and their capacity to handle customer objections through direct dialogue and negotiation. [1].

The traditional distribution channels operated through multiple levels which included manufacturers followed by wholesalers then distributors and finally retailers thus creating intricate systems that salespeople needed to handle properly. The hierarchical structures demanded salespeople to comprehend specific requirements and incentives of each intermediary level which led to tailored selling methods for various channel partners. Sales territories followed geographic patterns to enable frequent personal interactions between salespeople and customers while their regular visits built customer loyalty that extended past single transactions[2].

Before the digital age customer relationship management depended on manual documentation systems where salespeople kept written records of customer interactions and preferences and purchase histories. Sales managers based their performance assessments on sales volume and revenue data but they lacked insight into customer satisfaction and relationship quality. Salespeople functioned as the main source of market intelligence by providing direct

[1] Johnston, Mark W., and Greg W. Marshall. "Sales Force Management: Leadership, Innovation, Technology." 12th ed., Routledge, 2018, pp. 45-78.

[2] Jobber, David, and Geoffrey Lancaster. "Selling and Sales Management." 10th ed., Pearson, 2019, pp. 200-230

customer feedback which resulted in a slower and less structured process between customer needs and product development [1].

The Relationship-Based Digital Transformation Framework (RBDTF) is a strategic model that combines the personalized aspects of traditional sales with the efficiency and scalability of digital technologies. This approach recognizes that businesses must embrace digital transformation to remain competitive, but they should not lose the vital human elements that drive customer loyalty and long-term relationships. In today's digital marketplace, these personal connections are essential for sustaining brand trust and value..[2]

The RBDTF core element includes Relationship Mapping which requires organizations to document all customer touchpoints throughout the entire journey. Organizations can create a complete understanding of customer behavior and preferences by documenting all interaction details from first contact until post-sale support. The mapping process enables organizations to preserve traditional relationship strengths through digital solution enhancements.[3].

Digital Augmentation involves identifying which customer interactions require digital enhancement. Companies perform thorough analysis to identify areas where technology can optimize operations and automate standard procedures while maintaining the human elements customers find important. The strategic approach to digital augmentation allows businesses to use their investments to strengthen their core relationship capabilities instead of replacing them..[4]

The Hybrid Implementation requires organizations to define specific rules which decide between digital tool usage and traditional personal methods. Organizations use this dual approach to adapt their digital and human interaction methods according to customer need complexity and context. Companies achieve efficient scalable solutions through method integration while maintaining essential empathy and nuance for high-value relationship management..[5]

The RBDTF requires organizations to measure relationship quality metrics at two points: before and after implementing digital integration. Organizations can measure the effects of digital enhancements on customer relationships through key performance indicators which include customer satisfaction, retention rates and Net Promoter Scores (NPS). The thorough

[1] Kumar, V., and Werner Reinartz. "Customer Relationship Management: Concept, Strategy, and Tools." 3rd ed., Springer, 2018, pp. 90-120.

[2] Westerman, G., Bonnet, D., & McAfee, A. (2014). Leading Digital: Turning Technology into Business Transformation. Harvard Business Review Press.

[3] Kaufman, I., & Horton, C. (2014). Digital Marketing: Integrating Strategy and Tactics with Values, A Guidebook for Executives, Managers, and Students. Routledge.

[4] : Rainsberger, L. (2023). Digital Transformation in Sales: How to Turn a Buzzword into Real Sales Practice – A 21-Step Guide. Springer

[5] Kotler, P., & Keller, K. L. (2016). Marketing Management (15th ed.). Pearson.

evaluation process creates a feedback system which helps organizations improve their strategies and guarantees digital transformation activities meet business targets..[1]

The framework recommends implementing digital integration through phased approaches. The initial phase of digital integration starts with low-risk customer segments for testing and strategy development before expanding to high-value relationships. The methodical deployment approach reduces system disruptions while enabling organizations to learn and adapt their strategies for achieving sustainable and effective transformation..[2]

This comprehensive, relationship-centered approach not only modernizes sales operations but also preserves the human touch vital for long-term success. By balancing the efficiency of digital tools with the relational strengths of traditional methods, organizations can achieve sustainable competitive advantage in an increasingly digital environment.[3]

The Sales Effectiveness Drivers

Figure (1) illustrates a sales effectiveness framework, adapted from Zoltners, Sinha, and Lorimer (2008). This framework identifies five key components that work together to foster a high-performing sales organization.

The first component 1. Customer strategy effectiveness drivers help the selling organization focus on the right priorities with a plan for who to sell to, what value to offer, and how to connect with customers to create mutual value.

2. Organization design effectiveness drivers help the sales organization create sales channels, roles and structures for providing effective and efficient customer coverage.

3. Talent effectiveness drivers help the sales organization recruit, develop, manage, and motivate a team of salespeople, managers, and leaders who have knowledge and skill and to succeed in their roles.

4. Channel and customer engagement effectiveness drivers help the selling organization execute the customer strategy through synchronized selling activities that create value for customers, channel partners, and the company.

5. Supporting architecture provides resources for designing and supporting all the sales effectiveness drivers. Supporting architecture includes technology and tools, along with support staff who bring the needed skills.

While the framework takes a sales-centric approach, the components of customer strategy and channel/customer engagement are shared domains between sales and marketing. The balance of focus between sales and marketing will vary depending on the company or industry, with personal selling being central in certain contexts. Within each component, various sales decisions and processes contribute to driving overall sales effectiveness, collectively referred

[1] : Zeithaml, V. A., Bitner, M. J., & Gremler, D. D. (2018). Services Marketing: Integrating Customer Focus Across the Firm (7th ed.). McGraw-Hill Education.

[2] Rogers, E. M. (2003). Diffusion of Innovations (5th ed.). Free Press.

[3] Bharadwaj, A., El Sawy, O. A., Pavlou, P. A., & Venkatraman, N. (2013). Digital business strategy: Toward a next generation of insights. MIS Quarterly, 37(2), 471–482.

to as the "sales effectiveness drivers." These drivers play a crucial role in determining the success of a sales organization and are essential for achieving sustained performance outcomes.[1]

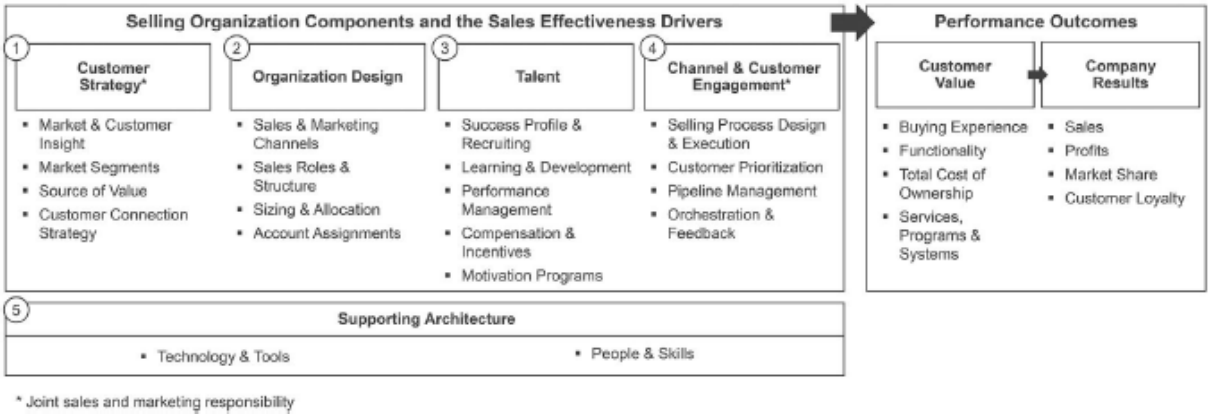


Figure 1 : sales effectiveness framework. [2]

2. Digital Transformation in Sales

Organizations undergo a complete sales process transformation through digital transformation by using technology to build efficient data-driven customer-centric selling processes. The transformation goes beyond technology adoption because it requires organizations to adopt new operational processes and strategic digital-first approaches while shifting their mindset. Chief Digital Officers now lead the transformation by connecting technological possibilities to business targets while building cross-functional teams to execute digital initiatives successfully[3].

The sales industry has experienced rapid digital transformation because of three main factors: customer demands for smooth multichannel interactions and rising competition from digital-first companies and fast-evolving technological capabilities that enable new sales approaches. The transformation process unfolds in evolutionary phases starting with digital process implementation followed by cross-functional digital integration before reaching business model innovation that transforms customer value delivery. The successful implementation of each stage demands more advanced change management strategies and progressively advanced technological capabilities[4].

The sales force undergoes continuous digital transformation across industries because organizations invest heavily in modern technologies to boost sales capabilities. Businesses

[1] Zoltners, A. A., Sinha, P., Sahay, D., Shastri, A., & Lorimer, S. E. (2021). Practical insights for sales force digitalization success. Journal of Personal Selling & Sales Management, 41(2), 87–102.

[2] Zoltners, A. A., Sinha, P., Sahay, D., Shastri, A., & Lorimer, S. E. (2021). Practical insights for sales force digitalization success. Journal of Personal Selling & Sales Management, 41(2), 87–102.

[3] Singh, Amritpal, and Thomas Hess. "How Chief Digital Officers Promote the Digital Transformation of Their Companies." MIS Quarterly Executive, vol. 16, no. 1, 2017, pp. 31-44.

[4] Syam, Niladri, and Arun Sharma. "Waiting for a Sales Renaissance in the Fourth Industrial Revolution: Machine Learning and Artificial Intelligence in Sales Research and Practice." Industrial Marketing Management, vol. 69, 2018, pp. 135-146

allocate major funds to improve their digital sales infrastructure through annual technology investments of $4,581 per salesperson which resulted in a total $55 billion expenditure in 2019.[1]

Digital technology adoption disrupted traditional sales processes which transformed both customer interactions and sales task execution for salespeople. The sales landscape transforms through digital technologies including artificial intelligence and machine learning and internet of things (IoT) and smart sensors and social media platforms and cloud services which enable customer data collection and analysis and relationship management and digital sales channels and sales team and client communication tools.

Digital sales tools continue to evolve which enables businesses to enhance their sales productivity and revenue generation while improving customer relationships and facilitating cross-selling and upselling activities. The potential for enhanced efficiency and performance is clear but these technologies present adoption and employee buy-in challenges. Sales teams must now accept these new tools which create substantial changes to their operational environment..[2]

Digital transformation goes beyond operational efficiency improvements to transform business models which enables organizations to create new revenue streams and access new markets while transforming their value propositions. The sales industry has moved away from product-focused models to adopt service-based and subscription-based models which focus on building continuous customer connections instead of single deals. The transformation requires organizations to adopt new performance metrics and compensation structures and organizational alignments which support recurring revenue models and value customer lifetime value more than short-term sales targets.[3]

The bar chart visually represents the different perceptions of digital sales technologies among salespeople, showing how many feel supported versus those who harbor concerns like job insecurity or mental exhaustion. [4]

[1] Alavia, S., & Habelb, J. (2021). The human side of digital transformation in sales: Review & future paths. Journal of Personal Selling & Sales Management, 41(2), 83–86

[2] Alavia, S., & Habelb, J. (2021). The human side of digital transformation in sales: Review & future paths. Journal of Personal Selling & Sales Management, 41(2), 83–86

[3] Chaffey, Dave. "E-Business and E-Commerce Management: Strategy, Implementation and Practice." 6th ed., Pearson, 2015, pp. 210-256

[4] Alavia, S., & Habelb, J. (2021). The human side of digital transformation in sales: Review & future paths. Journal of Personal Selling & Sales Management, 41(2), 83–86

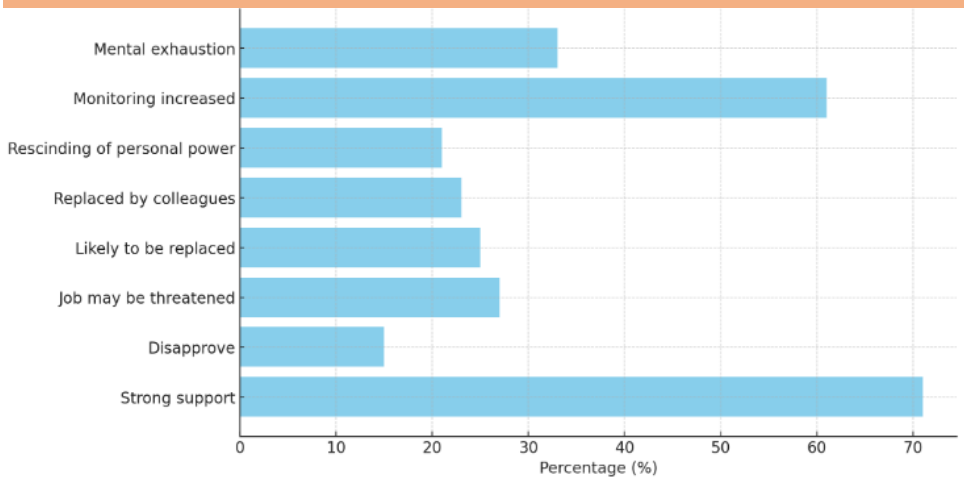


Figure 2 : The bar chart of the different perceptions of digital sales technologies among salespeople

3. Impact of Technology on Sales Operations

Sales operations have undergone a fundamental transformation through technology which enables complete automation of sales cycle processes from lead generation to proposal development and contract management. The automation of workflows has removed numerous administrative tasks that used to occupy salespeople thus enabling them to dedicate more time to customer-focused activities which need human interaction and relationship development abilities. Digital tools have standardized sales processes which leads to consistent customer experiences and generates digital footprints that provide valuable insights for continuous improvement.[1]

Digital technology advancements have enabled sales organizations to adopt data-driven decision-making through advanced analytics which provides insights that were previously difficult to obtain or needed extensive manual processing. Sales leaders use predictive analytics to make more accurate outcome forecasts while using prescriptive analytics to find best next actions and diagnostic analytics to identify performance variation root causes. These capabilities enable more precise resource allocation, personalized customer engagement strategies, and fact-based coaching that addresses specific performance gaps rather than relying on intuition or generalized best practices[2].

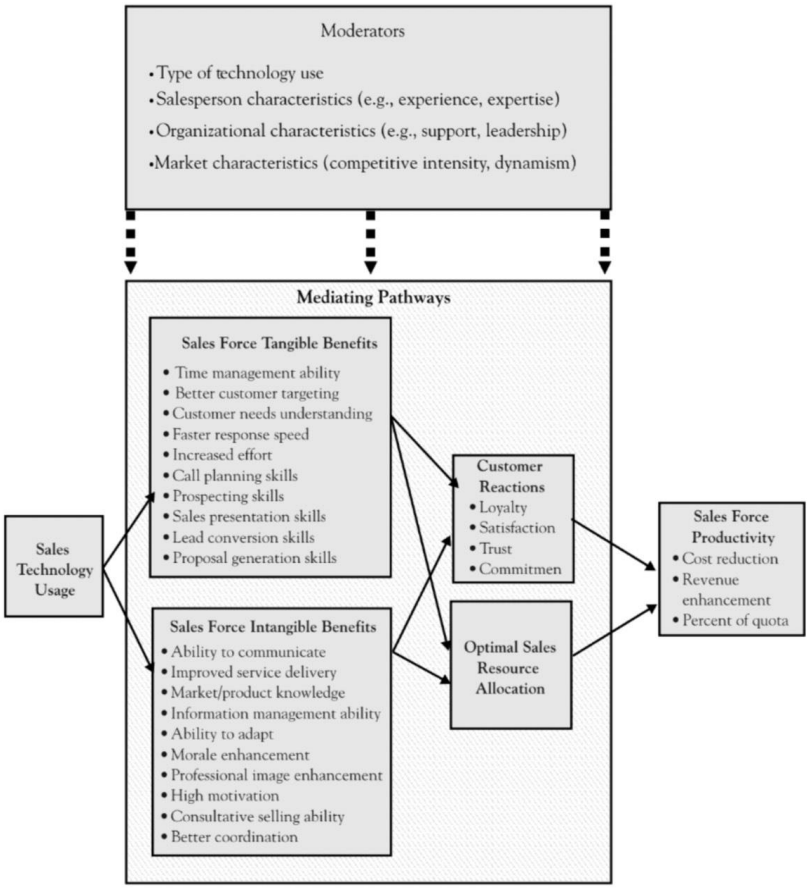
Digital technologies have transformed the way salespeople interact with customers by providing new communication channels, facilitating information sharing, and creating opportunities for virtual engagement that transcends geographic limitations. Customers now research products independently and expect salespeople to add value beyond basic information provision, functioning as consultative partners who can interpret complex information and tailor solutions to specific needs. Performance measurement has similarly

[1] Syam, Niladri, and Arun Sharma. "Waiting for a Sales Renaissance in the Fourth Industrial Revolution: Machine Learning and Artificial Intelligence in Sales Research and Practice." Industrial Marketing Management, vol. 69, 2018, pp. 135-146

[2] Davenport, Thomas H., and Jeanne G. Harris. "Competing on Analytics: The New Science of Winning." Harvard Business Review Press, 2017, pp. 89-123.

evolved from simple output metrics to more sophisticated indicators that capture customer engagement quality, relationship development, and value creation throughout the customer journey.[1]

The conceptual framework presented in the figure illustrates the influence of sales technology usage on sales force productivity through a set of mediating pathways, while also recognizing the role of several moderating variables. This model seeks to explain how the integration of technological tools into the sales process can enhance performance outcomes by improving both tangible and intangible competencies of the sales force.



Figure(3): A Conceptual Framework on the Impact of Sales Technology Usage on Sales Force Productivity: Mediating Mechanisms and Moderating Factors[2]

At the core of this framework lies sales technology usage, which encompasses the application of technological tools such as customer relationship management (CRM) systems, sales automation software, and data analytics platforms. These tools serve as enablers of performance by facilitating access to real-time information, streamlining sales processes, and enhancing communication with clients.

[1] Buttle, Francis, and Stan Maklan. "Customer Relationship Management: Concepts and Technologies." 4th ed., Routledge, 2019, pp. 102-145.

[2] Panagopoulos, N. (2010). Sales technology: Making the most of your investment. Business Expert Press

CHAPTER 1 :FRAMEWORK OF SALES DIGITALIZATION

The impact of sales technology is channeled through two primary mediating pathways: tangible benefits and intangible benefits for the sales force. Tangible benefits refer to measurable improvements in skill sets and operational capabilities, such as enhanced time management, better customer targeting, improved understanding of customer needs, faster response times, and increased sales effort. Furthermore, the use of sales technology contributes to the development of critical competencies including call planning, prospecting, sales presentations, lead conversion, and proposal generation.

In addition to these observable outcomes, sales technology usage also generates intangible benefits that influence the salesperson's behavior and attitude. These include improved communication skills, enhanced service delivery, better product and market knowledge, and more effective information management. Moreover, intangible benefits contribute to the salesperson's adaptability, professional image, morale, motivation, consultative selling ability, and overall coordination within the sales team.

These tangible and intangible benefits, in turn, influence customer reactions, which are essential indicators of relational performance. Positive customer reactions, such as increased loyalty, satisfaction, trust, and commitment, are critical for long-term business success. Concurrently, these benefits support optimal sales resource allocation, ensuring that organizational efforts are strategically directed toward high-value opportunities and clients, thereby improving efficiency

Ultimately, these mediating mechanisms contribute to enhanced sales force productivity, as reflected in outcomes such as cost reduction, revenue growth, and the achievement of sales quotas. However, it is important to note that the effectiveness of these pathways is contingent upon several moderating factors. These include the type of technology employed, the characteristics of the salesperson (such as experience and expertise), organizational attributes (including leadership and support), and external market conditions (such as competitive intensity and environmental dynamism).

Section 1.2: Digital Sales Tools and Technologies

The technological infrastructure supporting contemporary sales operations has expanded with remarkable velocity, yielding both tremendous opportunities and significant implementation challenges. This section offers a critical examination of the primary digital tools reshaping sales practices across sectors. Customer Relationship Management systems have evolved far beyond basic contact databases to become sophisticated engagement platforms that orchestrate multichannel customer interactions. E-commerce architectures now support increasingly complex transaction models while mobile applications extend sales capabilities beyond traditional workplace boundaries. Perhaps most significantly, analytics tools have transformed intuition-based sales approaches into data-informed practices with measurable outcomes. Each technological category warrants thoughtful consideration not merely as isolated innovations but as interconnected elements within broader sales ecosystems. The section emphasizes that successful implementation requires more than technical knowledge – it demands thoughtful alignment between technological capabilities, organizational readiness, and strategic objectives.

CHAPTER 1 :FRAMEWORK OF SALES DIGITALIZATION

1. Customer Relationship Management (CRM) Systems

Customer relationship management (CRM) is a broadly recognized, widely-implemented strategy for managing a company's interactions with customers, clients and sales prospects. It involves using technology to organize, automate, and synchronize business processes—principally sales activities, but also those for marketing, customer service, and technical support. The overall goals are to find, attract, and win new clients, nurture and retain those the company already has, entice former clients back into the fold, and reduce the costs of marketing and client service. Customer relationship management denotes a company-wide business strategy embracing all client-facing departments and even beyond. When an implementation is effective, people, processes, and technology work together to increase profitability, and reduce operational costs.[1]

Modern sales organizations rely on Customer Relationship Management systems to store customer data and interaction history which enables personalized customer engagement through centralized access. The evolution of CRM systems started with contact management basics but developed into advanced platforms which connect with various data sources to build complete customer profiles that organizations can access. CRM systems today function as a unified customer information platform which removes data fragmentation while creating consistent customer interactions and enabling data-based sales approaches and performance tracking[2].

Digital CRM platforms now offer more than basic record-keeping functions because they include AI-based lead scoring and automated workflow management and predictive analytics that forecast customer needs and determine the best engagement approaches. The capabilities allow sales teams to use conversion probability for opportunity prioritization while delivering personalized communications at scale and taking proactive steps to meet customer needs before they express them. Modern CRM systems now integrate social listening features with sentiment analysis and behavioral tracking to deliver more comprehensive customer preference and buying signal insights[3].

The successful implementation of CRM demands thorough evaluation of technical aspects alongside organizational and strategic elements to achieve both adoption and value realization. Organizations need to assess their existing system integration needs and data quality management processes and training requirements to address adoption resistance. CRM implementation should be treated as a strategic initiative which supports customer experience goals rather than a technology deployment and organizations should define specific performance metrics to measure success. Organizations that treat CRM as a comprehensive

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[1] Chennoufi, W. (2017). The Enterprise Resource Planning (ERP) System as a Competitive Advantage to Enhance Organizational Performance (PhD's thesis). Ecole des Hautes Etudes Commerciales (HEC) Koléa, Algeria 12

[2] Buttle, Francis, and Stan Maklan. "Customer Relationship Management: Concepts and Technologies." 4th ed., Routledge, 2019, pp. 102-145.

[3] Kumar, V., and Werner Reinartz. "Customer Relationship Management: Concept, Strategy, and Tools." 3rd ed., Springer, 2018, pp. 90-120.

customer strategy supported by technology rather than a standalone software solution realize significantly greater returns on their investments [1].

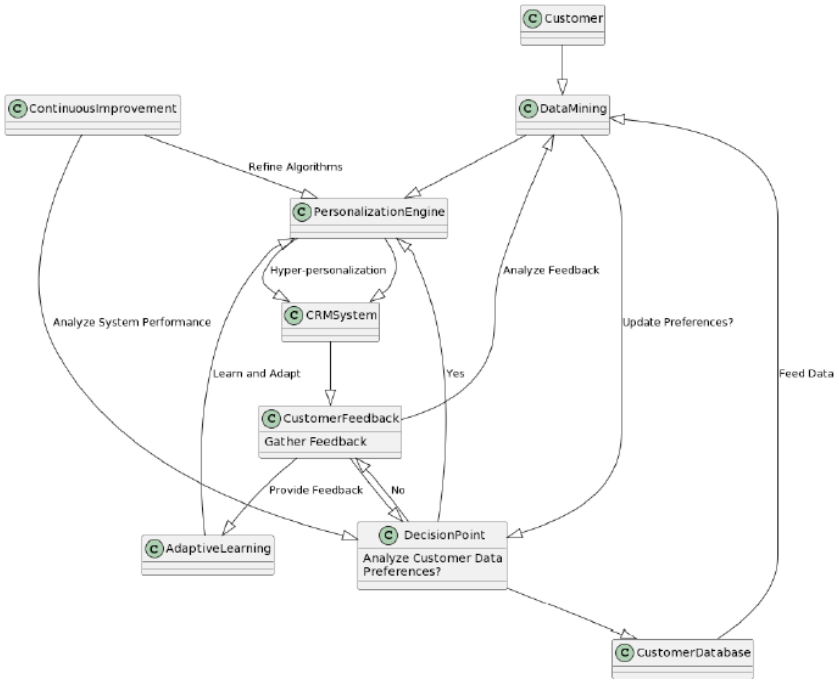

Figure (4) : Hyper-personalization for enhancing customer loyalty and satisfaction in CRM systems[2]

This diagram represents a comprehensive data-driven personalization framework aimed at enhancing customer experiences through the integration of various technological and analytical components. It illustrates a continuous feedback loop that leverages data mining, customer feedback, adaptive learning, and continuous improvement processes to deliver hyper-personalized services.

At the center of the process is the Customer, whose data and interactions are captured through a DataMining module. This module collects customer data, feedback, and behavioral information, which is then stored and updated within the CustomerDatabase. The DecisionPoint node evaluates whether the collected data is sufficient to analyze customer preferences. If affirmative, the system proceeds with analyzing customer feedback to update preferences and trigger the PersonalizationEngine. If not, feedback is further analyzed through AdaptiveLearning to refine the system's understanding before proceeding to personalization.

The PersonalizationEngine is responsible for generating tailored services based on mined data and customer preferences. It integrates with the CRMSystem to deliver hyper-personalization and facilitate the learning and adaptation of customer interactions. This leads to the CustomerFeedback stage, where feedback is gathered and analyzed to enhance future personalization strategies.

[1] Payne, Adrian, and Pennie Frow. "Strategic Customer Management: Integrating Relationship Marketing and CRM." Cambridge University Press, 2013, pp. 110-140.

[2]Rane, N. L., Choudhary, S. P., & Rane, J. Hyper-personalization for enhancing customer loyalty and satisfaction in Customer Relationship Management (CRM) systems. . (2023).SSRN.

An essential component of the system is the AdaptiveLearning module, which ensures the system evolves with each interaction by providing feedback to both the DecisionPoint and the PersonalizationEngine. This module plays a pivotal role in dynamically adjusting the system's responses and personalization algorithms.

Finally, the ContinuousImprovement process oversees the entire framework, focusing on analyzing system performance and refining algorithms. This ensures a cycle of constant enhancement, where data insights are systematically reintegrated into the personalization process to improve efficiency and customer satisfaction.

2. E-commerce Platforms

E-commerce platforms now function as advanced sales channels which allow businesses to create digital storefronts with different complexity levels and functional capabilities according to their specific needs. The three main categories of e-commerce platforms include SaaS solutions which deploy quickly with standard features and open-source platforms that allow extensive customization and enterprise commerce suites which deliver complex business support through advanced functionality. Organizations need to assess their digital maturity and strategic objectives when evaluating the trade-offs between implementation speed and customization potential and ongoing maintenance requirements and total cost of ownership for each platform type[1].

E-commerce platforms today offer features that extend past basic product catalogs and shopping carts through personalization engines which adapt content dynamically based on user behavior and sophisticated inventory management systems that synchronize across channels and advanced analytics that provide detailed insights into customer journeys and conversion optimization opportunities. Modern platforms provide marketers with powerful content management tools to develop compelling product stories and responsive design capabilities for device optimization and pricing engines that enable complex promotional strategies and customized pricing models[2].

The selection of an e-commerce platform demands comprehensive assessment between technical specifications and business requirements and strategic development plans to guarantee the chosen solution will adapt to market changes and scale properly. The evaluation process should focus on three main factors: business system integration capabilities with ERP and CRM systems, security features that meet regulatory requirements and compliance certifications, and architectural flexibility to support future business model innovations. Organizations must also assess the total cost of ownership beyond initial implementation, including ongoing licensing fees, maintenance requirements, and customization costs that may be necessary to support unique business processes or customer experience requirements[3].

[1] Chaffey, Dave. "E-Business and E-Commerce Management: Strategy, Implementation and Practice." 6th ed., Pearson, 2015, pp. 210-256.
[2] Chaffey, Dave, and Fiona Ellis-Chadwick. "Digital Marketing: Strategy, Implementation and Practice." 7th ed., Pearson, 2019, pp. 250-290.
[3] Algerian Ministry of Commerce. "E-Commerce Regulation Law No. 18-05." Official Gazette, 2018, pp. 3-10.

3. Mobile Sales Applications

Mobile sales applications have revolutionized field sales operations by providing representatives with comprehensive customer information, product details, and transaction capabilities directly at the point of customer interaction. These applications typically fall into several categories, including sales enablement tools that facilitate content presentation and sharing, order management applications that enable on-site transaction processing, and field service solutions that integrate sales and support functions. The most sophisticated mobile sales platforms incorporate offline functionality that maintains critical capabilities when connectivity is unavailable, location-based features that optimize territory management, and real-time synchronization that ensures data consistency across the organization[1].

Mobile sales applications with effective user experience design achieve adoption among sales teams who work under time constraints and experience regular interruptions. The design should focus on creating interfaces that need minimal training while streamlining workflows to reduce data entry needs and maintaining performance across different network conditions. The most successful applications strike a balance between complete functionality and operational simplicity by offering essential information and capabilities without overwhelming users through excessive options or complex navigation structures. Modern applications use voice interfaces together with camera-based data capture and device-specific features to simplify everyday operations[2].

The implementation of mobile sales applications demands strategic planning to tackle technical aspects alongside operational and behavioral elements which affect both adoption rates and effectiveness. Organizations need to create detailed deployment plans which include device management policies and security protocols for sensitive customer and pricing data and training programs that focus on individual user benefits instead of general organizational advantages. The successful adoption of mobile applications depends heavily on proper integration with existing sales systems because representatives will discard applications that force them to repeat work or do not show current system data. Organizations that integrate mobile applications into their sales digitalization strategy instead of using them as standalone solutions achieve much better adoption rates and return on investment[3]

4. Data Analytics Tools

Modern sales operations depend on data analytics tools to extract valuable insights from digital customer interaction data. The tools consist of four distinct categories which include descriptive analytics for historical performance pattern clarification and diagnostic analytics for outcome relationship identification and predictive analytics for future behavior forecasting and prescriptive analytics for action recommendation. Sales organizations today use machine learning algorithms to detect patterns beyond human capabilities and natural

[1] Jobber, David, and Geoffrey Lancaster. "Selling and Sales Management." 10th ed., Pearson, 2019, pp. 200-230.

[2] Kotler, Philip, and Kevin Lane Keller. "Marketing Management." 15th ed., Pearson, 2016, pp. 150-180.

[3] Chaffey, Dave, and Fiona Ellis-Chadwick. "Digital Marketing: Strategy, Implementation and Practice." 7th ed., Pearson, 2019, pp. 250-290.

language processing to analyze unstructured text data and visualization tools to present findings in formats that decision-makers from all technical backgrounds can understand[1].

Sales analytics effectiveness depends on disciplined data collection methods which guarantee both accuracy and completeness and direct relevance to business questions. Organizations need to create detailed data strategies which identify essential metrics that support strategic goals and establish standard definitions and collection methods and implement quality control procedures to preserve data integrity. Sophisticated sales organizations expand their CRM data by collecting diverse information from digital interaction records and social media signals and third-party market intelligence and competitive analyses. The combination of additional data sources with proper analytical methods and business context allows for more detailed customer behavior and preference insights[2].

To give clear insights to customers from data, a framework which enables to think of it as a cycle with different stages is needed. This framework involves various actions to be carried out in analyzing the data. Figure 2 depicts different phases of Data Analytics life cycle along with the flow of data in between, they are identifying the problem, preparing data, model planning, and building, communicating the obtained results with an operationalization of the product.

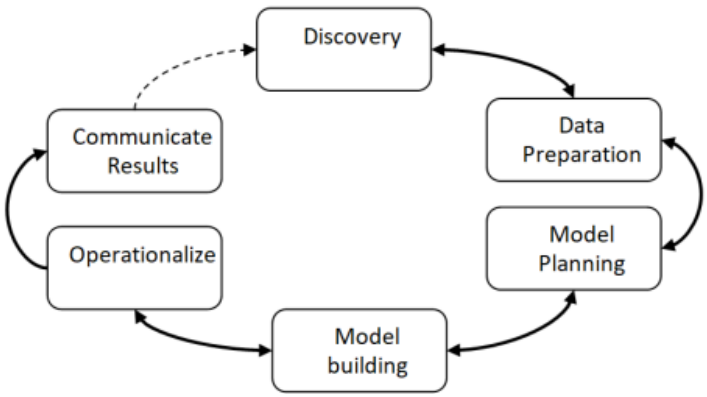

Figure (5): Data Analytics Life Cycle[3]

i) Discovery - Understand the problem and identifying whether enough information is available or not to prepare an analytic plan and share for another study is very important. In this phase, the business organization wants to make predictions over the data to make required decisions. Because of this reason, analytics are carried over the datasets. The team assesses the resources like people, technology, time, and information. Other activities in this phase comprise framing the problem and formulating early hypotheses.

[1] Davenport, Thomas H., and Jeanne G. Harris. "Competing on Analytics: The New Science of Winning." Harvard Business Review Press, 2017, pp. 89-123

[2] Marr, Bernard. "Data-Driven HR: How to Use Analytics and Metrics to Drive Performance." Kogan Page, 2018, pp. 60-90.

[3] Bonthu, S., & Bindu, K. H. (2017). Review of leading data analytics tools. International Journal of Engineering & Technology, 7(3.31), 10–15.

ii) Data preparation - Checking whether the data available is of good quality or not to start building the model is also important. This phase includes steps to explore, pre-process and order the data. This phase requires execution of extract, load, and transform (ELT). In this stage, the team also needs to be acquainted or got familiarize themselves with the data systematically to put data in well-ordered format.

iii) Model planning - Finding whether an idea which is available is good to try for a model is crucial. In this phase, the team finds out the process, methods, and order it needs to follow for the model building. The group determines the information to know about the variables, how they are related and consequently select key variables and suggests suitable models.

iv) Model building - To continue further, the model which is planned is robust or not has to be checked. In this stage, the team members put together datasets for training, production and testing functions. In this phase, the model built is executed to test work done in the planning phase is supported or not. The team also tests for suitability of the existing tools to run the prepared models.

v) Operationalize - In this phase, the team delivers a final documentation, summaries, project code, and technical documentation.

vi) Communicate results - This part of the life cycle determine whether the results are a success or a failure based on the analytic plan made at the discovery stage.[1]

Sales organizations achieve maximum value from analytics tools when these tools directly enable strategic and tactical and operational decision-making processes. Strategic applications include market segmentation refinement, customer lifetime value modeling, and resource allocation optimization across territories or product lines. The tactical applications include opportunity prioritization frameworks, pricing optimization models and channel effectiveness comparisons. The operational applications include performance variance analyses, conversion funnel diagnostics and sales activity optimization recommendations. Organizations that develop analytics capabilities aligned with specific decision support requirements rather than pursuing analysis for its own sake realize substantially greater returns on their analytics investments[2].

Section 1.3: Project Management in Sales Digitalization

The implementation of digital sales initiatives represents a particular species of organizational change – one characterized by technical complexity, cross-functional dependencies, and significant behavioral adaptations. This section examines frameworks for managing these multidimensional transformations, acknowledging that technological adoption alone rarely delivers anticipated benefits without corresponding attention to process redesign and capability development. The comparative merits of agile versus waterfall methodologies take on particular significance when considering the iterative nature of digital sales transformations. Effective resource allocation requires navigating tensions between short-term

[1] Bonthu, S., & Bindu, K. H. (2017). Review of leading data analytics tools. International Journal of Engineering & Technology, 7(3.31), 10–15.

[2] Parmenter, David. "Key Performance Indicators: Developing, Implementing, and Using Winning KPIs." 4th ed., Wiley, 2019, pp. 34-58.

operational needs and longer-term transformational objectives – a balancing act that many organizations struggle to maintain. Risk identification and mitigation gain heightened importance when digital initiatives intersect with revenue-generating functions, while performance measurement frameworks must evolve to capture both immediate efficiencies and longer-term customer relationship impacts. These project management considerations ultimately determine whether digital sales investments translate into sustainable competitive advantage or merely represent costly technological experiments.

1. Project Management Methodologies

Different project management methodologies offer structured frameworks for sales digitalization initiatives through which organizations can select approaches based on project characteristics and organizational context. Agile methodologies excel at digital transformation projects because they support iterative development and stakeholder feedback and adaptability to changing requirements especially when users need to adapt to new technologies. The Scrum framework within Agile enables sales digitalization teams to deliver incremental value through time-boxed sprints and daily coordination meetings and regular retrospectives which support continuous improvement and flexibility to incorporate emerging insights from early adoption[1].

The Waterfall approach follows a sequential process with distinct phases for requirements gathering, design, implementation, testing, and deployment, providing clear documentation and predictable timelines that can be advantageous for projects with well-defined requirements and significant regulatory considerations. This methodology offers greater predictability in resource planning and budgeting, making it suitable for certain aspects of sales digitalization projects where requirements are stable and compliance documentation is essential. However, its limited flexibility can create challenges when user feedback suggests necessary changes after development has progressed, potentially leading to costly rework or compromised user acceptance[2].

Organizations implement hybrid methodologies which integrate multiple approaches to meet sales digitalization project requirements that demand stable infrastructure alongside evolving user-facing applications. The hybrid approach implements Waterfall for infrastructure components with defined requirements and regulatory needs alongside Agile for user interfaces and workflow components that need iterative refinement through user feedback. The selection of methodology depends on organizational culture and team capabilities as well as stakeholder expectations and project characteristics such as scope clarity and requirement stability and business process interdependencies[3].

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[1] Beck, Kent, et al. "Manifesto for Agile Software Development." 2001, agilemanifesto.org.

[2] Project Management Institute. "A Guide to the Project Management Body of Knowledge (PMBOK Guide)." 6th ed., Project Management Institute, 2017, pp. 19-45.

[3] Kerzner, Harold. "Project Management: A Systems Approach to Planning, Scheduling, and Controlling." 12th ed., Wiley, 2017, pp. 145-175.

CHAPTER 1 :FRAMEWORK OF SALES DIGITALIZATION

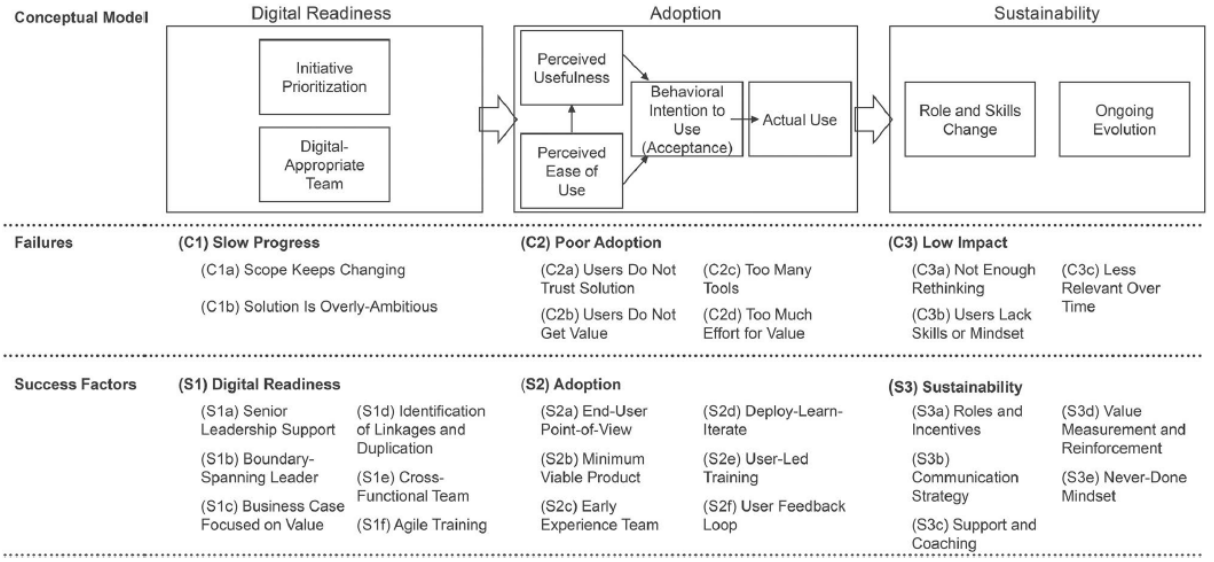

Figure 6 : Conceptual model for sales digitalization success with failures and success factors.[1]

Conceptual Model Overview

A. Digital Readiness:This initial phase involves preparing the organization for digital transformation. Two essential elements are emphasized: starting with Initiative Prioritization: Selecting and focusing on the most valuable and feasible digital initiatives.and Digital-Appropriate Team: Assembling a team with the right mix of skills, mindset, and organizational positioning.

B. Adoption: This phase is grounded in technology acceptance models. It captures how users perceive and engage with digital solutions:Perceived Usefulness and Perceived Ease of Use influence the Behavioral Intention to Use, which ultimately determines Actual Use. This pathway highlights the importance of user-centered design and experience.

C. Sustainability: Sustainability concerns the long-term integration and evolution of digital initiatives: Role and Skills Change: Adapting roles and developing new capabilities. Ongoing Evolution: Continuously improving and adapting the solution to maintain relevance.

Common Failures

C1. Slow Progress (C1a) Scope Keeps Changing: Indicates lack of clear focus, leading to inefficiencies. (C1b) Solution Is Overly-Ambitious: Suggests unrealistic expectations or overengineered designs, hindering progress.

C2. Poor Adoption (C2a) Users Do Not Trust Solution: Reflects skepticism or past failures. (C2b) Users Do Not Get Value: Lack of tangible benefits. (C2c) Too Many Tools: Fragmented or redundant systems confuse users. (C2d) Too Much Effort for Value: High cognitive or operational cost deters use.

[1] Zoltners, A. A., Sinha, P., Sahay, D., Shastri, A., & Lorimer, S. E. (2021). Practical insights for sales force digitalization success. Journal of Personal Selling & Sales Management, 41(2), 87–102.

C3. Low Impact (C3a) Not Enough Rethinking: Failure to rethink processes reduces the transformational potential. (C3b) Users Lack Skills or Mindset: Inadequate training or cultural resistance. (C3c) Less Relevant Over Time: Solutions become outdated or misaligned with evolving needs.

Success Factors

S1. Digital Readiness (S1a) Senior Leadership Support: Top-down commitment ensures strategic alignment and resource availability. (S1b) Boundary-Spanning Leader: Champions who can bridge departments and promote collaboration. (S1c) Business Case Focused on Value: Clear articulation of benefits and ROI. (S1d) Identification of Linkages and Duplication: Helps to streamline processes and avoid redundancy. (S1e) Cross-Functional Team: Diverse perspectives enhance problem-solving and innovation. (S1f) Agile Training: Prepares teams for adaptive, iterative approaches.

S2. Adoption (S2a) End-User Point-of-View: Solutions are designed with the user's needs in mind. (S2b) Minimum Viable Product: Iterative development promotes early wins and feedback. (S2c) Early Experience Team: Pilots that model success and encourage wider adoption. (S2d) Deploy-Learn-Iterate: Agile implementation cycle. (S2e) User-Led Training: Peer-to-peer learning fosters greater engagement. (S2f) User Feedback Loop: Continuous feedback enables rapid improvements.

S3. Sustainability (S3a) Roles and Incentives: Aligning rewards with new behaviors promotes sustained change. (S3b) Communication Strategy: Clear messaging helps manage expectations and reinforce vision.(S3c) Support and Coaching: Ongoing assistance ensures users grow in confidence and competence. (S3d) Value Measurement and Reinforcement: Demonstrating impact justifies continued investment. (S3e) Never-Done Mindset: Fosters a culture of continuous improvement.

2. Resource Planning and Allocation

The successful implementation of sales digitalization requires thorough identification of human resources who possess technical expertise and domain knowledge together with change management capabilities for effective resource planning. The project team needs members with different skill sets which include technical developers who know the chosen platforms and business analysts who know sales processes and data specialists who handle integration requirements and change champions who lead sales organization adoption. Organizations often underestimate the need for business resources to participate in requirements definition, testing, and adoption activities, creating bottlenecks that delay implementation when sales personnel are unavailable due to competing priorities [1].

The planning of technical resources goes beyond software development resources to include infrastructure components and integration capabilities and testing environments required to support new digital sales tools. Organizations need to assess hardware needs for mobile applications while evaluating server capacity for data processing expansion and network bandwidth for digital communication growth and security infrastructure to safeguard

[1] Project Management Institute. "A Guide to the Project Management Body of Knowledge (PMBOK Guide)." 6th ed., Project Management Institute, 2017, pp. 19-45.

customer and pricing information. Organizations need to plan technical support resources for both implementation phases and ongoing operations because support needs reach their peak after deployment when users learn new systems and processes[1].

The budget planning for sales digitalization projects demands thorough evaluation of both first-time implementation expenses and continuous operational costs to support lasting financial support during digital transformation. The initial budget needs to include costs for software licenses or development alongside hardware purchases and integration services and data migration and training development and productivity impacts during transition periods. The operational budget needs to include funds for system maintenance costs and periodic updates as well as continuous training for new users and regular system enhancements to meet changing requirements. Organizations that create realistic timeline expectations based on available resources and business cycles achieve better adoption rates and experience fewer disruptions than those who force implementations to meet arbitrary deadlines that ignore sales operational realities[2].

3. Risk Management

The first step in complete risk management for sales digitalization initiatives involves identifying potential risks through systematic evaluation of technical feasibility and organizational readiness and resource availability and market dynamics. Technical risks include integration challenges with legacy systems, data quality issues that undermine analytics capabilities, or performance limitations that impact user experience.. Organizational risks encompass resistance to adoption, insufficient executive sponsorship, or misalignment between digital capabilities and established sales processes. External risks include evolving regulatory requirements, competitive responses that diminish anticipated advantages, or shifting customer expectations that render planned capabilities less valuable than anticipated[3].

Risk assessment methodologies offer systematic methods to evaluate identified risks through probability and impact assessment which helps determine the best mitigation strategies. The qualitative risk assessment methods use expert judgment with structured scales to prioritize risks first while quantitative methods apply statistical methods to calculate specific cost and schedule implications. The assessments need to consider business-level impacts that include customer experience disruption and competitive disadvantage from delayed implementation and opportunity costs from resource diversion. Regular project governance processes that include risk assessment enable organizations to detect emerging risks early and respond more effectively than one-time assessments at project initiation[4].

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[1] Kerzner, Harold. "Project Management: A Systems Approach to Planning, Scheduling, and Controlling." 12th ed., Wiley, 2017, pp. 145-175.

[2] Hillson, David. "Practical Project Risk Management: The ATOM Methodology." 2nd ed., Management Concepts Press, 2012, pp. 67-89

[3] Hillson, David. "Practical Project Risk Management: The ATOM Methodology." 2nd ed., Management Concepts Press, 2012, pp. 67-89.

[4] Project Management Institute. "A Guide to the Project Management Body of Knowledge (PMBOK Guide)." 6th ed., Project Management Institute, 2017, pp. 19-45.

Risk mitigation strategies combine preventive measures to decrease occurrence probability with backup plans that reduce impact when prevented risks become actual. Sales digitalization projects use phased implementation approaches to validate concepts before full-scale deployment and prototyping activities to verify technical feasibility and comprehensive stakeholder engagement to address resistance preemptively. The contingency plan includes three elements: identifying backup technical solutions when primary approaches fail, implementing short-term manual procedures to sustain operations during system malfunctions and obtaining extra expert personnel to handle implementation problems beyond team capacity. Organizations that create detailed mitigation strategies with designated personnel and defined schedules obtain superior results than those who focus on risk awareness without specific response protocols[1].

4. Key Performance Indicators (KPIs)

A proper measurement system for sales digitalization initiatives needs multiple key performance indicators which track both implementation advancement and business results across various dimensions. Sales performance metrics analyze how digital tools affect core business results through their impact on revenue growth and market share expansion and customer acquisition costs and sales cycle duration. The assessment of these indicators requires appropriate segmentation to measure digital initiative impact independently from market factors through comparisons between early adopters and later implementation groups and pre/post analysis with statistical controls for external variables. Organizations that measure their baseline performance before starting implementation and maintain consistent tracking throughout the transition period obtain more valuable insights about digitalization impact[2].

The assessment of digital adoption metrics evaluates the extent to which sales teams implement new tools and processes in their daily work which serves as early indicators of business impact before financial results become apparent. System utilization statistics show active user percentages and feature adoption rates and interaction frequency patterns which demonstrate the extent of digital tool penetration into established workflows. Advanced adoption metrics evaluate quality aspects that extend past basic usage statistics by measuring data entry completeness and digital interaction effectiveness and process compliance rates. Organizations that track adoption patterns across both general and individual user bases can detect particular obstacles which need training or process improvement or technology modifications to boost value realization[3].

The evaluation of sales digitalization initiatives through return on investment requires assessment of both measurable financial gains and intangible value development which presents quantification challenges. Financial analyses focus on three main areas: cost

[1] Hillson, David. "Practical Project Risk Management: The ATOM Methodology." 2nd ed., Management Concepts Press, 2012, pp. 67-89.

[2] Parmenter, David. "Key Performance Indicators: Developing, Implementing, and Using Winning KPIs." 4th ed., Wiley, 2019, pp. 34-58.

[3] Marr, Bernard. "Data-Driven HR: How to Use Analytics and Metrics to Drive Performance." Kogan Page, 2018, pp. 60-90.

reduction through efficiency gains, revenue enhancement through conversion rate improvements and working capital improvements through accelerated sales cycles. The intangible advantages of digitalization include better customer experiences that strengthen loyalty programs and market intelligence capabilities which support strategic planning and organizational agility that allows for quick market response. The evaluation of ROI requires organizations to include all expenses from technology deployment beyond initial costs including training expenses and transition period productivity impacts and ongoing support requirements. Organizations that create success indicators based on specific business objectives instead of technology metrics receive better executive support throughout their multi-year digitalization journey[1].

Section 1.4: Digitalization Inventory in Algeria

The contextual particularities of national digital environments significantly influence the trajectory and velocity of sales transformation initiatives. Algeria presents a distinctive case study – a market characterized by ambitious digital development agendas alongside persistent infrastructure challenges and evolving regulatory frameworks. This section constructs a detailed assessment of Algeria's digital readiness through multiple analytical lenses: infrastructure development, policy frameworks, technology adoption patterns, and sector-specific initiatives. The pharmaceutical industry within this national context demonstrates varying levels of digital maturity, with multinational firms often operating alongside local enterprises at different stages of technological adoption. Government initiatives have demonstrated uneven impacts across different dimensions of the digital ecosystem, while regulatory frameworks continue to evolve in response to emerging digital business models. Understanding these contextual factors proves essential for organizations seeking to tailor global best practices to local market realities and develop digital sales strategies that acknowledge both opportunities and constraints within the Algerian environment.

1. Digital Infrastructure

Algeria's digital infrastructure has experienced significant development guided by the National Digital Transformation Strategy 2020-2024, which established a comprehensive framework for expanding connectivity, enhancing digital services, and building technological capabilities across both public and private sectors. This strategy addresses fundamental infrastructure elements including broadband expansion, data center development, and cloud computing capabilities necessary to support advanced digital applications. The government has prioritized several strategic initiatives, including modernization of the telecommunications regulatory framework, development of digital government services, and implementation of digital identity systems that enable secure online transactions. These foundational elements create the necessary environment for digital business model development, though implementation progress varies across different regions and economic sectors (Ministry of Post, Telecommunications, Technologies, and Digitalization, 2020)[2].

[1] Parmenter, David. "Key Performance Indicators: Developing, Implementing, and Using Winning KPIs." 4th ed., Wiley, 2019, pp. 34-58.

[2] Ministry of Post, Telecommunications, Technologies, and Digitalization. "National Digital Transformation Strategy 2020-2024." Government of Algeria, 2020, pp. 12-30.

CHAPTER 1 :FRAMEWORK OF SALES DIGITALIZATION

The telecommunications infrastructure in Algeria has shown notable improvement in recent years, with expanding mobile networks, increasing fixed broadband connections, and growing internet penetration rates that provide the necessary connectivity foundation for digital business models. Mobile network coverage has reached over 98% of the population with 4G services available in major urban centers, though rural areas continue to experience connectivity challenges. Fixed broadband infrastructure remains concentrated in urban areas with fiber optic deployment expanding in major cities but limited in smaller municipalities and rural regions. These patterns create disparate digital environments across the country, with businesses in major cities enjoying connectivity comparable to regional standards while those in less developed areas facing significant infrastructure limitations (International Telecommunication Union, 2021)[1].

Internet penetration in Algeria has grown substantially, reaching approximately 60% of the population, though this figure remains below comparable middle-income countries and reveals significant digital divide challenges. Mobile internet has emerged as the primary access method for most users, with smartphone adoption driving increased digital engagement across demographic groups. However, bandwidth limitations and affordability concerns continue to constrain more advanced digital applications, particularly those requiring consistent high-speed connectivity or substantial data transfer capabilities. These infrastructure limitations influence the development of Algeria's digital ecosystem, with businesses adapting their digital strategies to accommodate variable connectivity environments and developing hybrid approaches that function effectively despite occasional connectivity constraints (World Bank, 2020)[2].

2. Parapharmaceutical Sector Digital Maturity

The Algerian parapharmaceutical sector demonstrates varying levels of digital maturity, with multinational corporations generally implementing more advanced digital capabilities than domestic manufacturers and distributors. Large international parapharmaceutical companies operating in Algeria have typically transferred global digital systems to their local operations, including sophisticated CRM platforms, e-detailing capabilities, and data analytics tools that enhance sales force effectiveness. In contrast, many domestic parapharmaceutical organizations remain in earlier stages of digital adoption, often utilizing basic digital tools without comprehensive integration or strategic alignment. This digital maturity gap creates both competitive challenges and learning opportunities as best practices gradually disseminate throughout the industry, accelerated by professional networks and employee movement between companies (World Health Organization, 2020)[3].

Government initiatives have increasingly focused on digitalization within the healthcare and parapharmaceutical sectors, with the Digital Health Strategy 2021-2025 establishing specific objectives for enhancing digital capabilities across the medication lifecycle. Key initiatives

[1] International Telecommunication Union. "Measuring Digital Development: Facts and Figures 2021." ITU Publications, 2021, pp. 5-15.

[2] World Bank. "Digital Economy Assessment of Algeria." World Bank Publications, 2020, pp. 22-47.

[3] World Health Organization. "Regulation of Medical Products in Algeria: A Comprehensive Review." WHO Press, 2020, pp. 15-40.

include implementation of electronic prescription systems, development of digital platforms for regulatory submission and approval processes, and creation of integrated databases for parapharmaceutical product registration and tracking. These initiatives aim to improve efficiency, enhance transparency, and strengthen compliance monitoring throughout the parapharmaceutical supply chain while establishing digital infrastructure that facilitates private sector digital innovation. Implementation progress varies across different initiatives, with regulatory digitalization advancing more rapidly than patient-facing applications that require broader healthcare system integration (Algerian Ministry of Health, 2021)[1].

Regulatory frameworks governing digital operations in the parapharmaceutical sector have evolved to address emerging technologies while maintaining stringent safety and compliance requirements. The Algerian National Agency of Parapharmaceutical Products has established specific guidelines for digital marketing practices, electronic documentation systems, and data integrity requirements that parapharmaceutical companies must navigate when implementing digital sales and marketing solutions. These regulatory considerations significantly influence digital adoption decisions, with compliance requirements sometimes necessitating customization of global digital platforms to accommodate local requirements. Organizations with strong regulatory affairs capabilities have generally implemented more advanced digital solutions, leveraging their compliance expertise to navigate regulatory complexities while maintaining validation requirements for digital systems (Algerian National Agency of Pharmaceutical Products, 2022)[2].

3. Digital Sales Landscape

E-commerce penetration in Algeria's parapharmaceutical and parapharmaceutical sectors remains in early development stages compared to other industries, constrained by regulatory considerations, logistical challenges, and consumer purchasing behaviors. While e-commerce regulations established in 2018 created legal foundations for online sales development, parapharmaceutical products face additional regulatory requirements that limit fully digital transaction models. Parapharmaceutical products enjoy somewhat greater flexibility, with several platforms emerging to offer non-prescription products through digital channels. Consumer adoption of these platforms varies significantly across demographic segments, with younger urban populations demonstrating greater willingness to purchase health-related products online while older consumers and those in rural areas maintaining stronger preferences for traditional pharmacy channels where they can receive personalized advice (Algerian Ministry of Commerce, 2018)[3]

Digital marketing capabilities within Algeria's parapharmaceutical sector have developed more rapidly than transactional e-commerce, with companies increasingly utilizing digital channels for product information dissemination, healthcare professional engagement, and brand development. Social media platforms have become important communication channels for over-the-counter and parapharmaceutical products, though prescription medication

[1] Algerian Ministry of Health. "Digital Health Strategy 2021-2025." Government of Algeria, 2021, pp. 8-25.

[2] Algerian National Agency of Pharmaceutical Products. "Annual Report on Pharmaceutical Market 2022." ANPP Publications, 2022, pp. 33-60.

[3] Algerian Ministry of Commerce. "E-Commerce Regulation Law No. 18-05." Official Gazette, 2018, pp. 3-10.

marketing remains more constrained by regulatory considerations. Content marketing approaches focused on health education and disease awareness have emerged as particularly effective strategies that navigate regulatory limitations while providing valuable information to potential customers. Organizations with integrated marketing approaches that coordinate messaging across digital and traditional channels generally achieve greater effectiveness than those treating digital as an isolated tactical execution (Chaffey and Ellis-Chadwick, 2019)[1].

Several distinct barriers influence technology adoption within Algeria's parapharmaceutical sales environment, including infrastructure limitations in certain regions, workforce digital literacy variations, implementation costs relative to perceived benefits, and organizational change management challenges. Regulatory uncertainty regarding certain digital practices also creates hesitation among some organizations, particularly regarding data privacy considerations and electronic record compliance requirements. Despite these challenges, competitive pressures are increasingly driving digital adoption as organizations recognize that digital capabilities have become essential competitive requirements rather than optional enhancements. Leading organizations have developed structured approaches to overcome these barriers, including phased implementation strategies that deliver incremental value, comprehensive training programs that address digital literacy gaps, and cross-functional governance models that ensure regulatory compliance throughout digital transformation initiatives(WorldBank,2020)[2].

[1] Chaffey, Dave, and Fiona Ellis-Chadwick. "Digital Marketing: Strategy, Implementation and Practice." 7th ed., Pearson, 2019, pp. 250-290.

[2] World Bank. "Digital Economy Assessment of Algeria." World Bank Publications, 2020, pp. 22-47

Conclusion

Chapter 1 establishes the conceptual and theoretical foundations for understanding sales digitalization, particularly as it applies to regulated and evolving markets like Algeria. The chapter demonstrates that digitalization in sales is not merely a technological upgrade but a profound transformation of business models, processes, and organizational culture. It traces the evolution from traditional, relationship-based sales methods to hybrid models that integrate digital tools—such as CRM systems, e-commerce platforms, and advanced analytics—while preserving the essential human elements that drive customer loyalty and trust.

Key frameworks, including the Relationship-Based Digital Transformation Framework (RBDTF), emphasize the need to balance digital efficiency with personalized customer engagement. The chapter also highlights the critical role of project management methodologies (Agile, Waterfall, and hybrid approaches) in ensuring successful digital transformation, underlining the importance of leadership support, cross-functional teams, and robust risk management.

Furthermore, the chapter contextualizes these theoretical insights within the Algerian environment, noting both the progress and limitations of digital infrastructure, regulatory frameworks, and sectoral digital maturity. It concludes that successful sales digitalization requires a tailored, phased approach that aligns technological adoption with organizational readiness, regulatory compliance, and clear performance measuremen

CHAPTER 2:
PARAPHARMACEUTICAL INDUSTRY AND DIGITAL SALES

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Introduction

The parapharmaceutical sector occupies a distinctive position within healthcare markets – characterized by complex regulatory requirements, specialized product knowledge, and multi-layered distribution channels. Digital transformation within this context assumes particular characteristics that reflect both industry-specific constraints and strategic imperatives. This chapter examines the intersection between parapharmaceutical commerce and digital sales methodologies, exploring how sector-specific requirements shape the adoption patterns of emerging technologies. From virtual detailing applications that have reconfigured professional engagement models to integrated customer experience platforms that span multiple touchpoints, the chapter maps the digital reconfiguration of established industry practices. Implementation challenges receive particular attention, acknowledging the organizational complexity inherent in transforming established sales approaches within regulated environments. The chapter concludes with an examination of emerging technologies likely to drive further evolution in parapharmaceutical sales models, providing a forward-looking perspective that complements historical analysis of transformation patterns.

Chapter 2 : PARAPHARMACEUTICAL INDUSTRY AND DIGITAL SALES

Section 2.1: Overview of Parapharmaceutical Sales

The parapharmaceutical market embodies distinctive characteristics that differentiate it from conventional consumer goods sectors – operating at the intersection of healthcare, consumer wellness, and scientific innovation. This section examines the industry's underlying structure and dynamics, analyzing how product classification schemes, specialized distribution arrangements, and regulatory frameworks shape sales approaches. Market segmentation within this space reveals complex patterns of customer behavior, with purchasing decisions influenced by professional recommendations, regulatory constraints, and individual wellness objectives. Distribution channel architectures demonstrate remarkable variation across different national contexts, with direct-to-pharmacy, wholesale-mediated, and emerging e-commerce models coexisting in many markets. The regulatory environment surrounding parapharmaceutical products introduces additional complexity, with significant implications for sales practices, promotional approaches, and customer communication strategies. Understanding these industry-specific characteristics provides essential context for subsequent analysis of digital transformation patterns and implementation approaches within parapharmaceutical sales operations.

1. Industry Characteristics

The Algerian parapharmaceutical industry maintains its own unique market position by offering various product lines which extend beyond conventional pharmaceuticals through separate regulatory systems. The market consists of dietary supplements and herbal products and medical devices and personal care items and other health-related products which do not need prescriptions but are distributed through pharmacies. The industry structure combines international brands that operate globally with local manufacturers who create products to meet regional market requirements. The competitive market structure shows different patterns between product categories because multinational corporations lead certain segments through global research while local companies maintain stronger positions in segments where they understand cultural preferences and traditional remedies better[1].

The traditional distribution channels for parapharmaceutical products in Algeria rely on pharmacy networks which operate through 12,000 pharmacies across the country to reach consumers. The pharmacy-based distribution channels offer expert guidance to consumers who seek professional advice when buying health-related products thus building trust that shapes their purchasing choices. The distribution landscape has shifted through time by introducing specialized parapharmaceutical stores and health-focused retail chains and limited e-commerce platforms which operate under regulatory rules. Brands now use multiple distribution channels because each channel offers different benefits for geographic reach and product selection and pricing methods and customer service quality[2].

[1] IMS Health. "Global Use of Medicines: Outlook Through 2025." IQVIA Institute, 2021, pp. 50-75.

[2] Algerian National Agency of Pharmaceutical Products. "Annual Report on Pharmaceutical Market 2022." ANPP Publications, 2022, pp. 33-60.

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The parapharmaceutical market shows different customer segments with distinct buying patterns which shape sales strategy development. The health-conscious urban professional segment continues to expand because they focus on preventive health products and show willingness to spend more for perceived quality and efficacy. Price-conscious consumers make up a major market segment which looks for affordable basic functionality in their routine use products. The specialty needs consumer segment consists of profitable yet limited customer groups that need particular health solutions for specific medical conditions and tend to remain loyal to brands that meet their requirements effectively. Organizations that create targeted value propositions and marketing strategies for specific customer segments perform better than those using general strategies across diverse customer groups[1].

2. Regulatory Environment

The Algerian regulatory system divides parapharmaceutical products into separate categories which demand different compliance standards depending on product characteristics and intended medical use and health benefit statements. The regulatory process for dietary supplements differs from medical devices and cosmetic products with therapeutic claims thus creating an intricate system which manufacturers and distributors need to handle with caution. The National Agency of Pharmaceutical Products exercises oversight authority over most parapharmaceutical categories through registration procedures and manufacturing standards and marketing guidelines that guarantee product safety and claim substantiation. The regulatory framework has undergone substantial changes during recent years to support new product categories and international standards while preserving adequate consumer protection measures[2].

The compliance requirements for parapharmaceutical products include manufacturing practices, quality control procedures, labeling standards and marketing claim limitations which together ensure product safety and accurate consumer information. The scientific substantiation requirements for products with specific health claims exceed those of products with general wellness positioning which creates strategic considerations for product development and marketing approaches. International brands encounter extra complexity due to import regulations which demand documentation requirements and testing procedures and sometimes require extensive approval procedures that extend market entry timelines. Organizations that excel in regulatory affairs management can turn market barriers into competitive advantages through accelerated approvals and enhanced compliance positioning[3].

The regulations regarding digital sales of parapharmaceutical products have emerged recently to establish particular rules for online marketing and e-commerce transactions and digital health product consumer engagement. The regulations protect consumers who use health products while establishing digital innovation frameworks that preserve necessary

[1] Kotler, Philip, and Kevin Lane Keller. "Marketing Management." 15th ed., Pearson, 2016, pp. 150-180.

[2] World Health Organization. "Regulation of Medical Products in Algeria: A Comprehensive Review." WHO Press, 2020, pp. 15-40.

[3] Algerian National Agency of Pharmaceutical Products. "Annual Report on Pharmaceutical Market 2022." ANPP Publications, 2022, pp. 33-60.

safeguards. The regulations establish three main requirements which include online health product sales oversight by professionals and digital marketing claim restrictions and health-related consumer information data protection standards. The regulatory environment adapts to expanding digital business models through authorities who strive to support innovation alongside protecting consumers. Organizations which actively work with regulatory bodies during digital initiative development tend to face reduced compliance issues when implementing their projects[1].

3. Stakeholder Analysis

The parapharmaceutical industry functions inside a multifaceted stakeholder environment which multiple entities strongly affect market operations and business success indicators. Healthcare professionals who are pharmacists play essential roles as stakeholders because they guide consumer choices by recommending products based on their expert evaluation of effectiveness and safety and value. The operating framework of the industry emerges from regulatory authorities through their development of policies and their enforcement activities and approval procedures which decide which products gain market access and their permitted marketing methods. The consumer base has evolved into an informed stakeholder group that demands transparent products and scientific evidence and ethical business conduct which exceeds minimum regulatory standards[2].

Manufacturers in the parapharmaceutical value chain now focus on product innovation and quality assurance while distributors focus on logistics efficiency and market access because of market development. Pharmacy owners and managers make essential product assortment choices which decide which brands get shelf space and visibility and pharmacy staff deliver point-of-sale consultation that drives consumer choices. The influence of healthcare professionals who are not pharmacists such as physicians and nutritionists and wellness practitioners varies according to product category and positioning. Digital platforms now play a vital role as stakeholders by offering information and enabling comparisons and sometimes allowing direct transactions which bypass traditional intermediaries[3].

The parapharmaceutical ecosystem demands sophisticated stakeholder management because it contains multiple interests and influence patterns. Manufacturers need to find equilibrium between scientific progress and commercial success to meet healthcare professional demands and maintain business stability. The distribution network faces two main challenges because manufacturers push for operational efficiency yet retail partners need excellent service levels. Retailers need to manage their product selection range against inventory limitations while providing expert guidance to consumers and maintaining product availability. Organizations that create thorough stakeholder management plans which address intricate interdependencies will establish more enduring market positions than those who concentrate solely on present-

[1] Algerian Ministry of Commerce. "E-Commerce Regulation Law No. 18-05." Official Gazette, 2018, pp. 3-10.

[2] Freeman, R. Edward. "Strategic Management: A Stakeholder Approach." Cambridge University Press, 2010, pp. 56-78.

[3] Jobber, David, and Geoffrey Lancaster. "Selling and Sales Management." 10th ed., Pearson, 2019, pp. 200-230.

day customer connections. Systematic stakeholder mapping combined with influence and interest-based prioritization and customized engagement approaches help organizations find mutual value creation opportunities while respecting diverse stakeholder motivations[1].

Section 2.2: Digital Transformation in Parapharmaceutical Sales

The application of digital technologies within pharmaceutical and parapharmaceutical sales contexts has progressed beyond incremental efficiency improvements to fundamentally reshape engagement models and distribution approaches. This section examines this transformation across multiple dimensions, beginning with the evolution of professional engagement through e-detailing and virtual meeting platforms. These technologies have reconfigured traditional sales call patterns while generating new requirements for digital content development and remote engagement capabilities. Digital marketing channels have assumed increasing prominence within promotional strategies, though their application remains shaped by regulatory considerations unique to health-related products. The emergence of omnichannel frameworks represents perhaps the most significant strategic shift – replacing siloed channel approaches with integrated customer journeys that span physical and digital touchpoints. Customer experience management within this evolving landscape requires sophisticated orchestration of interactions across channels while maintaining regulatory compliance and message consistency. Through examination of implementation cases and outcome analyses, this section illuminates both the transformative potential and practical challenges of digital adoption within pharmaceutical sales operations.

1. E-detailing and Virtual Meetings

The sales engagement between parapharmaceutical representatives and healthcare professionals now uses e-detailing to deliver digital content through tablets and web platforms and videoconferencing systems which sometimes replace traditional in-person meetings. The digital presentation tools allow for more dynamic information sharing through interactive visualizations and embedded videos and real-time data presentation which improves complex product information understanding. Modern e-detailing platforms use branching content structures to modify presentations according to healthcare professional interests which produces more relevant and personalized interactions than traditional linear slide presentations. The tools generate usage analytics which help sales representatives identify their most engaging content elements so they can optimize their presentation methods and develop more focused follow-up discussions[2].

Virtual communication platforms have expanded engagement possibilities beyond traditional office visits, enabling parapharmaceutical sales representatives to interact with healthcare professionals through video conferencing, webinars, and virtual events that overcome

[1] Freeman, R. Edward. "Strategic Management: A Stakeholder Approach." Cambridge University Press, 2010, pp. 56-78.

[2] Syam, Niladri, and Arun Sharma. "Waiting for a Sales Renaissance in the Fourth Industrial Revolution: Machine Learning and Artificial Intelligence in Sales Research and Practice." Industrial Marketing Management, vol. 69, 2018, pp. 135-146.

scheduling and geographic limitations. These platforms have evolved from basic video calls to sophisticated environments with screen sharing capabilities, interactive polling features, and digital whiteboard functionality that facilitate collaborative discussion. During the COVID-19 pandemic, these virtual engagement approaches evolved from occasional alternatives to essential communication channels, accelerating adoption and capability development across the industry. Organizations have developed hybrid engagement models that strategically combine virtual and in-person interactions based on relationship stage, message complexity, and healthcare professional preferences rather than treating virtual communication as merely a substitute for face-to-face meetings[1].

Measuring the effectiveness of virtual selling approaches requires more sophisticated analytics than traditional activity-based metrics, with organizations developing multidimensional frameworks that evaluate both engagement quality and business outcomes. Quantitative measures include connection frequency, interaction duration, content utilization patterns, and subsequent prescription behavior changes that indicate influence effectiveness. Qualitative assessments examine interaction quality through recorded call analysis, healthcare professional feedback, and representative self-evaluation. Leading organizations have implemented closed-loop measurement systems that correlate digital engagement patterns with business outcomes, enabling continuous optimization of virtual selling approaches based on demonstrated effectiveness rather than subjective assessments.Measuring the effectiveness of virtual selling approaches requires more sophisticated analytics than traditional activity-based metrics, with organizations developing multidimensional frameworks that evaluate both engagement quality and business outcomes. Quantitative measures include connection frequency, interaction duration, content utilization patterns, and subsequent prescription behavior changes that indicate influence effectiveness. Qualitative assessments examine interaction quality through recorded call analysis, healthcare professional feedback, and representative self-evaluation. Leading organizations have implemented closed-loop measurement systems that correlate digital engagement patterns with business outcomes, enabling continuous optimization of virtual selling approaches based on demonstrated effectiveness rather than subjective assessments. These measurement frameworks have become increasingly important as organizations allocate resources between virtual and in-person engagement channels, requiring clear evidence of relative effectiveness to inform strategic decisions about field force structure and capability development[2].

[1] Buttle, Francis, and Stan Maklan. "Customer Relationship Management: Concepts and Technologies." 4th ed., Routledge, 2019, pp. 102-145.

[2] IMS Health. "Global Use of Medicines: Outlook Through 2025." IQVIA Institute, 2021, pp. 50-75.

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2. Digital Marketing Channels

Organizations now use online marketing strategies as fundamental components of parapharmaceutical promotional approaches by creating integrated digital campaigns which support traditional engagement methods and reach audiences through their preferred information channels. The strategies use multiple digital touchpoints which include display advertising for specific audiences and search engine marketing and email campaigns and educational content distribution through owned digital platforms. The most advanced approaches use programmatic advertising technologies to optimize placement dynamically through healthcare professional online behaviors which ensures messages reach their most relevant audiences at their optimal engagement times. Organizations now use retargeting methods to maintain message consistency across digital platforms which creates multiple reinforcement points that boost message recall and influence[1].

The parapharmaceutical industry uses social media platforms to connect with healthcare professionals and consumers through dedicated communities and educational content sharing and disease awareness programs. The choice of platform depends on target audience characteristics because LinkedIn targets professionals while Instagram uses visual content to tell product stories and Facebook builds patient communities. Social media strategies in parapharmaceutical contexts require careful attention to regulatory requirements because organizations create detailed approval systems and monitoring protocols and adverse event reporting systems to maintain compliance while enabling proper engagement. Organizations that create unique content for each platform instead of using the same content everywhere achieve better audience growth and higher engagement metrics[2].

The parapharmaceutical context shows that health education combined with scientific information sharing and solution-oriented messaging approaches deliver the most effective results in content marketing. Organizations that establish themselves as trusted information sources instead of product promoters gain preference from both healthcare professionals and consumers who seek knowledge beyond transaction facilitation. The successful implementation of parapharmaceutical content marketing depends on medical and regulatory teams working with marketing teams to achieve scientific accuracy and regulatory compliance and compelling presentation. Organizations use dedicated digital campaign management systems to optimize approval procedures while keeping proper controls in place which enables faster digital engagement without violating compliance standards or scientific requirements[3].

The following table presents a concise overview of the primary digital marketing channels used by businesses today. Each channel is outlined with its core purpose and key advantages,

[1] Chaffey, Dave, and Fiona Ellis-Chadwick. "Digital Marketing: Strategy, Implementation and Practice." 7th ed., Pearson, 2019, pp. 250-290.

[2] Kotler, Philip, and Kevin Lane Keller. "Marketing Management." 15th ed., Pearson, 2016, pp. 150-180.

[3] Chaffey, Dave, and Fiona Ellis-Chadwick. "Digital Marketing: Strategy, Implementation and Practice." 7th ed., Pearson, 2019, pp. 250-290.

providing a quick reference for understanding how these tools contribute to effective digital marketing strategies.

Channel	Core Purpose	Key Advantages
Website Marketing	Central hub for brand and content	Builds credibility, supports conversions, improves SEO
Pay-Per-Click (PPC) Advertising	Paid ads for targeted traffic	Fast results, precise targeting, budget control
Content Marketing	Educate and engage through valuable content	Builds trust, supports SEO, long-term engagement
Email Marketing	Direct, personalized communication	Cost-effective, high ROI, good for retention and promotion
Social Media Marketing	Reach and interact with users on social platforms	Boosts brand visibility, community engagement, real-time feedback
Affiliate Marketing	Outsource promotion to partners	Performance-based, low upfront cost, wider reach
Influencer Marketing	Leverage influencer credibility	Trust-based promotion, high engagement, niche targeting
Mobile Marketing	Reach users on smartphones and tablets	High personalization, immediate delivery, location-based targeting
Video Marketing	Communicate visually through video content	Strong engagement, effective storytelling, shareable content
Audio Marketing	Deliver messages via audio platforms	Hands-free engagement, podcast sponsorships, growing medium
Digital Signage Marketing	Display digital ads in physical spaces	Real-world interaction, dynamic content updates
Instant Messaging Marketing	Real-time, one-on-one communication	Personalized, fast response, builds relationships
VR & AR Marketing	Immersive, interactive product experiences	High engagement, innovation, strong emotional impact

Table 1 :Overview of Key Digital Marketing Channels[1]

[1] DURUCASU, R., R. (2025). Digital Marketing Channels: Basic Methods and Applications, UluslararasıAkademik Yönetim Bilimleri Dergisi, 10 (16): 71-93

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3. Omnichannel Strategy

The strategic implementation of channel integration has become essential for parapharmaceutical organizations that want to provide seamless customer experiences across multiple fragmented engagement channels. The integration process demands technological solutions to link data across platforms together with organizational alignment that unifies previously independent functions including field sales and digital marketing and medical affairs and customer service. Organizations that lead the market have established integrated customer data platforms which merge all interaction data from various channels to provide personalized experiences through any customer contact point. The capabilities show high value in parapharmaceutical settings because healthcare professionals now switch between in-person and virtual and self-service digital interactions based on their current needs and time availability rather than following set patterns[1].

Customer journey mapping offers a systematic approach to map how healthcare professionals and patients move between touchpoints during their interaction with parapharmaceutical brands starting from awareness and continuing through information search and product selection and usage and ending with potential repurchase decisions. The maps identify key points of interaction where experience quality strongly affects customer perceptions and choices so organizations can focus their resources on these essential touchpoints. The mapping process shows hidden issues between channels which standard channel-specific analytics would miss. Organizations that create separate journey maps for various customer segments and therapeutic areas obtain more useful insights than those who use general journey frameworks on diverse customer groups with different information requirements and decision-making processes[2].

Cross-channel consistency represents both a significant challenge and a competitive opportunity for parapharmaceutical organizations, requiring coordinated governance across content development, message sequencing, data collection, and performance measurement. Content consistency ensures that healthcare professionals and patients encounter aligned information regardless of whether they attend an in-person presentation, participate in a virtual meeting, or independently access a website. Experiential consistency addresses interaction quality across channels, ensuring that service standards, response timeframes, and personalization capabilities meet similar expectations whether customers engage through digital or personal channels. Organizations that establish clear channel orchestration frameworks specifying how channels complement each other throughout customer journeys achieve greater marketing effectiveness than those operating channels as separate entities with independent strategies and success metrics[3].

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[1] Buttle, Francis, and Stan Maklan. "Customer Relationship Management: Concepts and Technologies." 4th ed., Routledge, 2019, pp. 102-145.

[2] Payne, Adrian, and Pennie Frow. "Strategic Customer Management: Integrating Relationship Marketing and CRM." Cambridge University Press, 2013, pp. 110-140.

[3] Kumar, V., and Werner Reinartz. "Customer Relationship Management: Concept, Strategy, and Tools." 3rd ed., Springer, 2018, pp. 90-120.

Chapter 2 : PARAPHARMACEUTICAL INDUSTRY AND DIGITAL SALES

In the evolving landscape of customer engagement, businesses have adopted various channel strategies to enhance communication, reach, and sales. The three predominant approaches—multi-channel, cross-channel, and omni-channel—differ significantly in how they operate, integrate, and interact with customers.

The multi-channel strategy involves the use of several independent channels such as physical stores, websites, and mobile platforms. These channels function separately, each with its own objectives and performance metrics. While this approach allows businesses to target different customer segments through specific platforms, it lacks integration. As a result, customers engaging with a brand on one channel cannot continue their experience seamlessly on another. Interaction is restricted within individual channels, leading to a fragmented customer journey and inconsistent brand experience.[1]

In contrast, the cross-channel strategy introduces a degree of integration between channels, allowing customer interactions to carry over from one touchpoint to another. Although not all channels may be equally emphasized or widely implemented, this model enables customers to switch channels mid-journey—such as reserving a product online and picking it up in-store. Cross-channel management focuses on minimizing conflicts and barriers between platforms, striving to create synergy that enhances customer convenience and supports more cohesive interactions.

Taking integration to the next level, the omni-channel strategy presents a fully unified and holistic customer experience. All channels—physical stores, e-commerce sites, mobile apps, social media, and even mass communication platforms like TV and radio—are interconnected. Customers can engage with a brand through any combination of these touchpoints, often simultaneously, without disruption. This seamless experience is the result of strategic channel and touchpoint management that aligns all interactions toward a consistent brand narrative and optimized shopping experience. The omni-channel approach prioritizes the overall customer journey over individual channel performance, aiming to build strong customer–brand relationships and maximize lifetime value.

Overall, the progression from multi-channel to omni-channel reflects an increasing focus on customer-centricity, integration, and experiential consistency. While multi-channel strategies emphasize channel performance and reach, cross-channel strategies aim for interaction and synergy. Omni-channel strategies, however, place the customer at the center of a fully synchronized ecosystem, delivering a truly connected and responsive brand experience.

[1] Pollák, F. (Ed.). (2024). Management in marketing communications. IntechOpen Series: Business, Management and Economics. (Vol. 22, p. 166)

Aspect	Multi-channel	Cross-channel	Omni-channel
Definition	Operating multi-channels as independent entities to align channels with specific target customer segments.	Cross-channel integration enables multi-channels and customer touchpoints to synergize.	Customers are free to choose from all parallel channels, seamlessly switching between different channels throughout their shopping journey.
Channel scope	Stores, websites, and mobile channels.	Multi-channels, but not all channels are widely spread.	Stores, websites, mobile channels, social media, and all other customer touchpoints (including mass communication channels like TV, radio) serve as information and transactional points.
Channel integration	No channel switching. Using channels in parallel.	Allow cross-channel customers. Synergy across channels.	Seamless switching between all channels and touchpoints. Using channels simultaneously.
Customer interaction	No possibility of triggering interaction. Customer–channel interaction.	Partial interaction can be triggered. Customer–channel interaction.	Full interaction can be triggered. Customer–brand–channel interaction.
Channel goals	Channel-specific goals such as sales per channel. Channel-specific experience.	Synergy between channels.	Overall customer experience, total sales through channels.
Channel management	Maximizing performance of each channel—physical, telephone, web, and mobile.	Channel conflict management, emphasizing channel boundaries and minimizing potential shifts during cross-channel occurrences.	Synergistic channel and touchpoint management optimizing customers toward a holistic shopping experience.

Table 2 : Comparison of Multi-Channel, Cross-Channel, and Omni-Channel Marketing Strategies[1]

4. Customer Experience Management

Organizations in parapharmaceutical markets now compete through digital customer experience quality as an essential differentiator which surpasses traditional product attributes and pricing considerations. The experience includes all digital interactions that customers have with a company during their relationship which includes website use and mobile apps and virtual meetings and emails and social media. Organizations that lead their market have established official experience design methodologies which use user-centered design principles to develop interfaces and workflows that meet both functional and psychological customer needs while creating emotionally resonant interactions. Experience quality stands

[1] Pollák, F. (Ed.). (2024). Management in marketing communications. IntechOpen Series: Business, Management and Economics. (Vol. 22, p. 166)

as a critical factor which affects business outcomes such as information recall and brand perception and recommendation likelihood and prescribing or purchasing behavior[1].

Personalization strategies leverage growing data capabilities to deliver tailored experiences across digital channels, moving beyond basic name recognition toward contextually relevant content, recommendations, and service approaches based on individual characteristics and behaviors. Parapharmaceutical organizations implement personalization at multiple levels, including segment-based approaches that customize experiences for distinct healthcare professional groups, behavioral personalization that adapts content based on demonstrated interests, and predictive personalization that anticipates needs based on similar customer patterns. Implementation requires careful balancing of personalization benefits against privacy considerations, particularly in healthcare contexts where data sensitivity creates additional compliance requirements. Organizations that clearly communicate personalization benefits and provide transparency regarding data usage establish the trust necessary for customers to share information that enables more relevant experiences[2].

Feedback mechanisms provide essential insights for continuous experience improvement while demonstrating customer-centricity that strengthens relationships. Digital channels offer expanded opportunities for feedback collection through embedded surveys, behavior analytics, sentiment analysis, and direct engagement tools that capture customer perspectives throughout their journey rather than only at designated intervals. Leading organizations employ mixed-method approaches combining quantitative metrics such as Net Promoter Score with qualitative feedback from in-depth interviews and observational studies to develop comprehensive understanding of experience quality. Closing the feedback loop through visible improvements based on customer input transforms feedback collection from a measurement exercise into a relationship-building opportunity that demonstrates organizational responsiveness to customer needs[3].

The table illustrates the correlation between Customer Experience Management (CEM) maturity and the realization of competitive advantage among organizations. The chart categorizes companies into five maturity levels: Product Hostage (Level 1), Customer Enthusiast (Level 2), Customer Activist (Level 3), Experiential Champion (Level 4), and Experiential Master (Level 5). For each level, it presents the proportion of organizations that report either no competitive advantage or a clear competitive advantage as a result of their CEM practices.In the early stages of maturity Levels 1 and 2 the majority of organizations do not report a competitive advantage. Specifically, only 1% of organizations at Level 1 and 19% at Level 2 indicate any competitive benefit, highlighting the limited impact of CEM at these initial stages. These findings suggest that basic or underdeveloped customer experience

[1] Buttle, Francis, and Stan Maklan. "Customer Relationship Management: Concepts and Technologies." 4th ed., Routledge, 2019, pp. 102-145.

[2] Payne, Adrian, and Pennie Frow. "Strategic Customer Management: Integrating Relationship Marketing and CRM." Cambridge University Press, 2013, pp. 110-140.

[3] Kumar, V., and Werner Reinartz. "Customer Relationship Management: Concept, Strategy, and Tools." 3rd ed., Springer, 2018, pp. 90-120.

efforts do not sufficiently differentiate organizations in the marketplace.Level 3, referred to as the Customer Activist stage, represents a critical transitional point. Here, organizations are almost evenly split: 49% report a competitive advantage, while 53% do not. This suggests that organizations at this stage are beginning to align customer experience initiatives more closely with strategic goals, but the impact is not yet consistent across all cases.A significant shift becomes evident at Level 4, the Experiential Champion stage. At this level, a notable 28% of organizations report a competitive advantage, compared to only 17% that do not. This 2–3x ratio advantage indicates that mature CEM practices begin to yield measurable strategic benefits, positioning companies to outperform competitors more consistently.

Finally, at Level 5 Experiential Master the data shows a clear dominance of competitive advantage. Although only a small percentage of organizations reach this level, those that do overwhelmingly report a positive impact (3%) versus those that do not (1%). This suggests that the highest levels of CEM maturity are strongly associated with sustained competitive differentiation and strategic success.

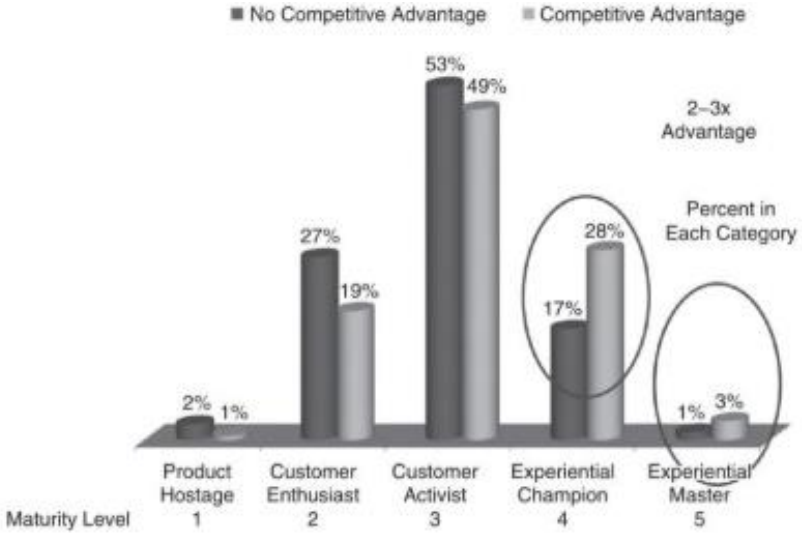

Figure 1 : Competitive Advantage Accrues with CEM Maturity[1]

Section 2.3: Management of Digital Transformation in Parapharmaceutical Sales

The implementation of digital sales initiatives within parapharmaceutical organizations necessitates carefully structured management approaches that acknowledge both technical complexity and significant organizational change dimensions. This section examines frameworks for navigating these multifaceted transformations, beginning with change management approaches tailored to professional sales environments. Leadership engagement emerges as a critical success factor, particularly in contexts where established sales practices may carry significant cultural attachment. Implementation strategies must navigate competing

[1] Peppers, D., & Rogers, M. Managing customer experience and relationships: A strategic framework (4th ed.). Wiley. (2022) p392.

priorities between maintaining current performance metrics and building future capabilities – a tension that often manifests in resource allocation decisions and project timelines. Performance monitoring frameworks require thoughtful design to capture both immediate operational metrics and longer-term indicators of successful digital adoption. Risk management takes on particular significance within regulated environments, where compliance considerations intersect with technical implementation challenges. By analyzing both successful implementations and instructive failures, this section develops a practical understanding of factors that differentiate effective digital transformation initiatives within parapharmaceutical sales contexts.

1. Change Management Framework

Organizational readiness assessment serves as a fundamental base for digital transformation success which helps parapharmaceutical companies detect particular capability gaps and cultural barriers and structural impediments that could reduce implementation effectiveness. A thorough readiness evaluation assesses various aspects which include technology infrastructure capacity and workforce digital literacy and leadership alignment with transformation objectives and organizational adaptability to new work methods. These assessments typically combine quantitative capability measures with qualitative cultural evaluation to identify both tangible skill gaps and intangible mindset barriers that require different intervention approaches. Organizations that conduct thorough readiness assessments before initiating major digital initiatives achieve substantially higher implementation success rates than those proceeding based on generalized transformation approaches without context-specific adaptation[1].

Leadership roles in digital transformation require more than executive sponsorship because they demand active participation in vision articulation and priority setting as well as barrier removal and visible adoption modeling that shows commitment beyond rhetorical support. Leadership approaches that achieve effectiveness spread transformation responsibilities across different organizational levels where executive leaders define strategic direction and middle managers convert vision into operational changes and team leaders handle daily implementation obstacles. The distributed leadership model proves essential for parapharmaceutical organizations because they need domain-specific change leadership from medical, regulatory and commercial experts rather than centralized direction.Organizations that develop transformation leadership capabilities throughout their hierarchy rather than concentrating responsibility with designated change agents achieve more sustainable adoption and greater resilience through implementation challenges [2].

Employee engagement strategies address the human dimensions of digital transformation, recognizing that technology adoption ultimately depends on individual decisions to embrace new ways of working rather than merely comply with procedural requirements. Effective engagement approaches combine rational elements that clearly communicate transformation

[1] Cameron, Esther, and Mike Green. "Making Sense of Change Management: A Complete Guide to the Models, Tools, and Techniques of Organizational Change." 5th ed., Kogan Page, 2019, pp. 85-110.

[2] Kotter, John P. "Leading Change." Harvard Business Review Press, 2012, pp. 45-70

benefits with emotional components that address underlying concerns about skill relevance, autonomy changes, and performance measurement evolution. Training programs that build confidence through progressive skill development, recognition systems that celebrate early adoption behaviors, and involvement opportunities that incorporate frontline perspectives into implementation decisions collectively enhance engagement. Organizations that acknowledge the legitimacy of resistance rather than dismissing it as merely "fear of change" develop more effective interventions by addressing specific underlying concerns rather than applying generic change management templates[1].

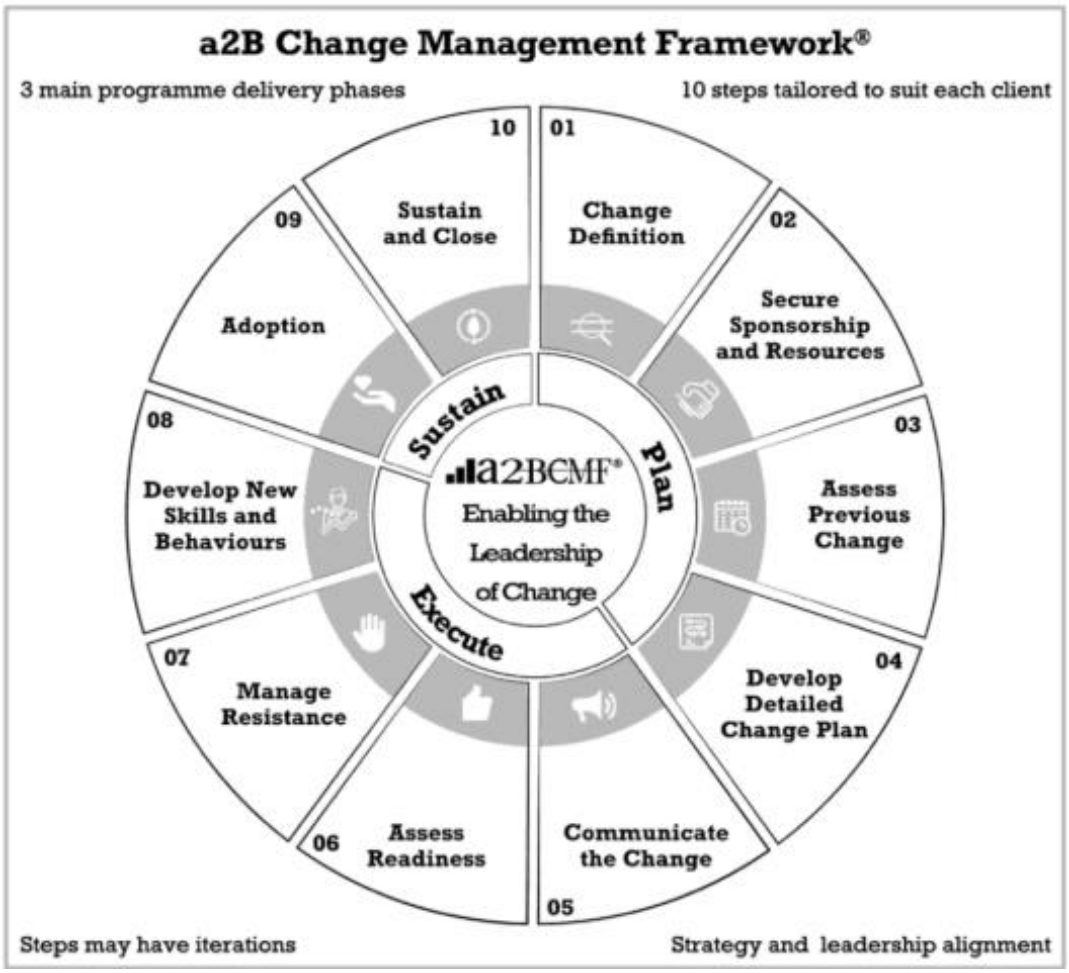

Figure 2: The a2B Change Management Framework[2]

The a2B Change Management Framework (a2BCMF) illustrated in the figure presents a structured and dynamic model designed to guide organizations through successful change initiatives. It is built upon three main programme delivery phases—Plan, Execute, and Sustain—and comprises 10 strategic steps, each tailored to align with organizational needs

[1] Hiatt, Jeffrey M. "ADKAR: A Model for Change in Business, Government, and Our Community." Prosci Research, 2006, pp. 30-55.

[2] Gallagher, P. F. The leadership of change: Change management handbook (Vol. 3, p. 24). a2B Change Management. (2019)

and leadership directives. This cyclical model emphasizes flexibility and iteration, ensuring that the process is adaptable to the specific context of each organization.

The first phase, Plan, involves four foundational steps. It begins with Change Definition (Step 1), where the nature and scope of change are clearly articulated. Next, Secure Sponsorship and Resources (Step 2) ensures executive support and resource allocation, which are critical for legitimacy and operational success. In Step 3, Assess Previous Change, past change initiatives are evaluated to extract lessons and avoid repeat pitfalls. The phase concludes with Step 4, Develop a Detailed Change Plan, which provides a roadmap, integrating goals, milestones, risks, and responsibilities.

The second phase, Execute, operationalizes the plan through three essential steps. Step 5, Communicate the Change, ensures transparent, multi-directional communication across stakeholders, fostering awareness and engagement. Assess Readiness (Step 6) identifies potential enablers and barriers to change, allowing for proactive strategies. Step 7, Manage Resistance, is vital for addressing emotional and psychological responses to change, minimizing pushback through empathy and targeted interventions.

Finally, the Sustain phase secures long-term adoption and value realization. Step 8, Develop New Skills and Behaviours, emphasizes capacity building and alignment with new operational norms. Adoption (Step 9) signifies the shift from transition to implementation, where change becomes embedded in the culture. The final step, Sustain and Close (Step 10), evaluates outcomes, reinforces successes, and formally concludes the change initiative, ensuring continuous improvement is embedded.

In essence, the a2BCMF® integrates strategic alignment, leadership engagement, and stakeholder readiness into a holistic framework, making it a powerful tool for managing complex change. Its iterative nature and emphasis on communication, resistance management, and sustainability make it especially relevant for dynamic, modern organizational environments.

2. Implementation Strategy

Phased implementation approaches enable parapharmaceutical organizations to manage complexity, demonstrate incremental value, and incorporate learning throughout the digital transformation journey rather than attempting comprehensive changes through high-risk "big bang" deployments. These phased strategies typically begin with pilot initiatives in receptive business units or territories, allowing organizations to validate concepts, refine approaches, and develop internal success stories before broader deployment. Subsequent phases expand implementation scope based on strategic priorities, organizational readiness, and interdependency requirements, with each phase incorporating lessons from previous experiences. Organizations that balance quick wins generating immediate value with foundational initiatives creating long-term capabilities maintain stakeholder support

throughout extended transformation journeys while developing sustainable digital capabilities rather than implementing isolated point solutions[1].

The integration of technology is a key success factor in thepara pharmaceutical digital transformation that needs to be orchestrated to bridge new digital capabilities to preexisting systems while keeping data intact, adhering to security needs, and cursing compliance documentation. Integration solutions need to work on three layers -technical connection between systems, process harmonization across systems and consistent data management. The parapharmaceutical domain is particular, because validation is necessary for systems dealing with regulated information, and it adds another dimension to the complexity (beyond enterprise integration as such). Companies creating omnichannel experiences where people and systems are in sync better serve their customers, employees, and partners, avoid cloud and SaaS silos that disrupt the promise of customer experience, and the business value of integrated systems promised by digital transformation[2].

Training programs for digital sales initiatives must address multiple learning dimensions beyond basic system functionality, including conceptual understanding of how digital tools transform customer engagement, practical application within specific selling contexts, and adaptive skills for continuous learning as capabilities evolve. Effective parapharmaceutical training approaches combine structured learning modules, hands-on practice opportunities, peer coaching, and performance support tools that reinforce learning during actual customer interactions. Organizations increasingly leverage digital learning methods including virtual classrooms, simulation environments, and microlearning modules that enable more flexible, personalized learning experiences aligned with individual needs and preferences. The most effective training programs establish clear connections between digital tool adoption and personal success metrics, helping salespeople understand specific benefits beyond organizational advantages that might seem abstract or disconnected from daily priorities (Hiatt, 2006)[3].

[1] Kerzner, Harold. "Project Management: A Systems Approach to Planning, Scheduling, and Controlling." 12th ed., Wiley, 2017, pp. 145-175.

[2] World Bank. "Digital Economy Assessment of Algeria." World Bank Publications, 2020, pp. 22-47.

[3] Hiatt, Jeffrey M. "ADKAR: A Model for Change in Business, Government, and Our Community." Prosci Research, 2006, pp. 30-55

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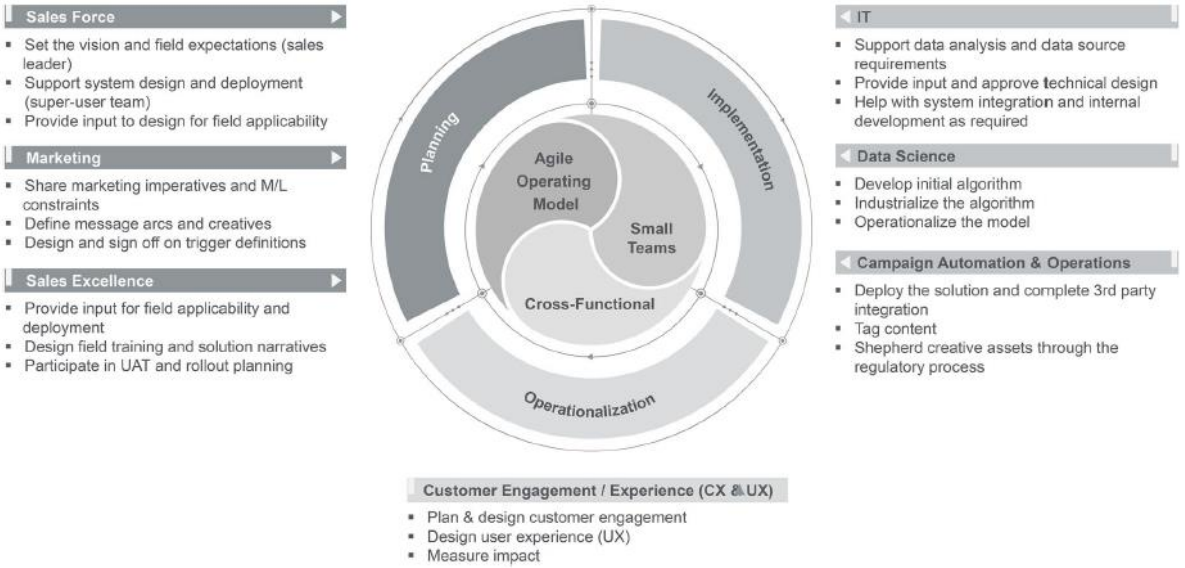

Figure 3 : Cross-functional team for a major digital sales initiative.

The figure shows the structure of a multi-tiered team that led a digital initiative that transformed omnichannel customer engagement for a large company. Under the guidance of a steering committee that was accountable for the outcome, a program management team (led by a boundary spanner) managed and coordinated efforts across many functions and with users. The program was divided into smaller, cross-functional teams focused on specific modules. A flexible approach brought the teams together to plan, implement and operationalize the solution.[1]

The circular design of the figure emphasizes the continuous and collaborative nature of the process. Rather than a linear progression, digital transformation unfolds in a cyclical and iterative manner, with each function contributing throughout the lifecycle. This model ensures that digital tools are developed in a way that is strategic, technically sound, and user-friendly, ultimately supporting a successful and sustainable transformation.

The complexity of digital transformation arises from organic evolution of legacy processes, unclear role delineation, and systemic inefficiencies. Automating flawed workflows without prior optimization risks institutionalizing inefficiencies. Success necessitates a structured approach to redefine processes, assign responsibilities, and integrate technology.

At Simon-Kucher & Partners, Daniel Bornemann, Michael Tatschl, Grigori Bokeria, Leonhard Sauerhammer introduced a five steps method :

1. Analyze Current Processes and Identify Pain Points

A comprehensive review of existing sales processes is conducted to distinguish between value-adding activities and those that, while necessary, do not directly contribute to sales outcomes. This step involves mapping the entire sales workflow, identifying inefficiencies,

[1] Zoltners, A. A., Sinha, P., Sahay, D., Shastri, A., & Lorimer, S. E. (2021). Practical insights for sales force digitalization success. Journal of Personal Selling & Sales Management, 41(2), 87–102.

bottlenecks, and sources of "dead sales time"—periods when sales representatives are engaged in non-selling tasks. Benchmarking against similar organizations is recommended to gain insights into best practices and to avoid unnecessary reinvention. The objective is to clearly understand where time and resources are being lost and to establish a baseline for improvement.

2. Define Lean Target Process and Clear Responsibilities

Based on the findings from the analysis, the sales process is redesigned to eliminate inefficiencies and streamline workflows. This involves removing redundant steps, simplifying procedures, and ensuring that each activity adds value. Clear assignment of roles and responsibilities is essential to prevent overlap and confusion among team members. The redesigned process should be lean, customer-centric, and structured to maximize efficiency and accountability within the sales team.

3. Validate Target Process with the Sales Team

The proposed target process is then tested with the actual sales team through simulations or pilot programs. This validation phase is critical to assess the practicality and effectiveness of the new process in real-world conditions. Feedback from sales representatives is collected to identify any remaining obstacles or areas for improvement. The process is refined as necessary to ensure it operates smoothly and meets the needs of those who will use it daily.

4. Formulate a Digitalization Strategy for the Target Process

With a validated process in place, the next step is to identify which components can be automated or enhanced through digital tools and technologies. This includes selecting appropriate software (such as CRM, CPQ, or contract management systems) and defining the required IT infrastructure. A strategic plan is developed to guide the implementation of these digital solutions, ensuring they are aligned with the redesigned sales process and organizational objectives[1]

5. Implement Target Process to Optimally Utilize Sales Time

The final step involves piloting and gradually rolling out the redesigned, digitized sales process across the organization. This phase includes comprehensive training for sales staff, close monitoring of the implementation, and ongoing measurement of key performance indicators to track progress. Adjustments are made as needed to address challenges, optimize resource allocation, and ensure the process delivers the intended efficiency gains and sales growth[2]

[1] https://www.simon-kucher.com/en/insights/getting-b2b-sales-sell-reduce-dead-sales-time-digital-processes

[2] https://www.simon-kucher.com/en/insights/getting-b2b-sales-sell-reduce-dead-sales-time-digital-processes

Step	Description	Key Activities
1	Process Analysis and Pain Point Identification	Audit current workflows; distinguish value-adding and non-value-adding tasks; benchmark industry
2	Target Process Design and Role Clarification	Redesign workflows; eliminate redundancies; assign clear responsibilities
3	Process Validation Through Stakeholder Engagement	Pilot redesigned process; gather and incorporate feedback from sales teams
4	Digitalization Strategy Development	Identify automatable steps; select digital tools; plan system integration
5	Implementation and Continuous Optimization	Roll out process; monitor KPIs; iteratively adjust for efficiency

Table 3 : Five-Step Framework for Digital-Ready B2B Sales Processes

3. Performance Monitoring

KPI frameworks for digital sales transformation must balance leading indicators that provide early feedback on implementation progress with lagging indicators that measure ultimate business impact. Comprehensive frameworks typically include adoption metrics tracking user engagement with new technologies, efficiency metrics measuring process improvements, effectiveness metrics assessing customer response, and business outcome metrics capturing financial and market position changes. These metrics should be tailored to specific organizational objectives rather than applying generic digital transformation measures, with particular attention to parapharmaceutical industry-specific considerations including regulatory compliance aspects of digital engagement. Organizations that establish clear connections between metrics at different levels enable more meaningful performance dialogues, helping stakeholders understand how adoption behaviors and process changes ultimately influence business outcomes (Parmenter, 2019)[1].

Quality assurance approaches for digital sales processes require specialized methodologies that address both technical performance and human application aspects of new capabilities. Technical quality monitoring examines system functionality, data accuracy, and integration reliability that collectively establish the foundation for effective digital engagement. Process quality evaluation assesses how consistently sales teams follow designed workflows, utilize available information, and incorporate digital insights into customer conversations. Experience quality measurement evaluates the customer perspective on digital interactions, identifying potential disconnections between technical functionality and actual user

[1] Parmenter, David. "Key Performance Indicators: Developing, Implementing, and Using Winning KPIs." 4th ed., Wiley, 2019, pp. 34-58.

experience. Organizations that implement holistic quality monitoring across these dimensions identify improvement opportunities that might remain hidden within narrower assessment approaches focused solely on technical performance or basic usage metrics (Marr, 2018)[1].

Compliance monitoring takes on particular importance within parapharmaceutical digital transformation, where regulatory requirements create additional verification needs beyond typical implementation concerns. Effective compliance approaches incorporate digital record-keeping capabilities that document adherence to promotional regulations, content approval workflows that ensure appropriate review before customer exposure, and audit trails that demonstrate process integrity. Leading organizations have implemented technological solutions that embed compliance into digital workflows rather than imposing it as a separate verification layer, reducing friction while maintaining necessary controls. These approaches recognize that compliance effectiveness ultimately depends on seamless integration with daily work processes rather than relying primarily on post-hoc verification or enforcement mechanisms (World Health Organization, 2020)[2].

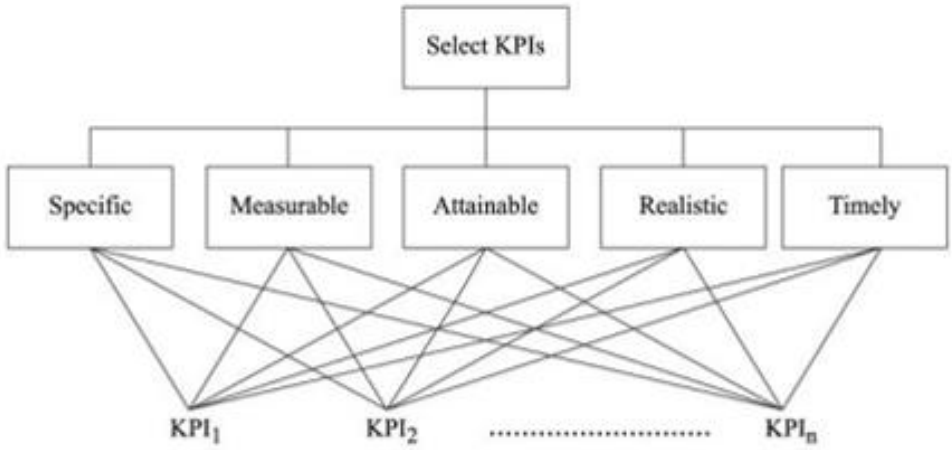

Figure 4 : KPI selection based on the SMART criteria[3]

4. Risk Management

Regulatory compliance represents both a critical risk factor and a potential competitive differentiator for parapharmaceutical digital initiatives, requiring specialized approaches beyond general digital transformation risk management. Organizations must navigate evolving regulations governing digital promotion, virtual engagement, data privacy, and electronic record-keeping that collectively establish the boundaries for permissible digital innovation. Effective compliance risk management combines proactive monitoring of

[1] Marr, Bernard. "Data-Driven HR: How to Use Analytics and Metrics to Drive Performance." Kogan Page, 2018, pp. 60-90.

[2] World Health Organization. "Regulation of Medical Products in Algeria: A Comprehensive Review." WHO Press, 2020, pp. 15-40.

[3] Tillieux, A.-E. Business intelligence practices in Belgian SMEs: Case study of the potential use of Business Intelligence by pharmacies [Master's thesis, University of Namur]. University of Namur Institutional Repository(2019).

regulatory developments, structured assessment processes for new digital initiatives, and collaborative relationships with regulatory authorities that facilitate clarification when requirements remain ambiguous. Organizations that integrate regulatory expertise into digital initiative development from initial conception rather than seeking approval only after significant investment achieve higher approval rates and faster implementation timelines (Algerian National Agency of Pharmaceutical Products, 2022)[1].

Data security considerations take on heightened importance in parapharmaceutical contexts due to the sensitive nature of healthcare information and specific regulatory requirements governing its protection. Security risk management must address multiple dimensions including access controls that limit information exposure to authorized users, encryption approaches that protect data both in transit and at rest, and breach response protocols that enable rapid mitigation if unauthorized access occurs. These security measures must balance protection requirements with usability considerations, recognizing that overly cumbersome security protocols may drive users toward unofficial workarounds that create greater vulnerability than appropriately designed security measures. Organizations that develop parapharmaceutical-specific security frameworks addressing industry requirements rather than applying generic security approaches achieve more effective protection while maintaining necessary workflow efficiency (World Health Organization, 2020)[2].

Technology adoption risks include both implementation failures where digital initiatives do not achieve intended adoption levels and operational disruptions where digital changes negatively impact existing business processes during transition periods. Mitigation strategies include phased implementations that isolate potential disruption, contingency processes that maintain business continuity during technical issues, and comprehensive testing protocols that identify problems before customer-facing deployment. Organizations must also address market risks where competitors might respond to digital innovations in ways that diminish anticipated competitive advantages, requiring scenario planning that considers potential market responses rather than assuming static competitive environments. Those that develop comprehensive risk registers addressing technological, operational, market, and regulatory dimensions achieve higher implementation success rates through more effective anticipation and mitigation of potential challenges (Hillson, 2012)[3].

[1] Algerian National Agency of Pharmaceutical Products. "Annual Report on Pharmaceutical Market 2022." ANPP Publications, 2022, pp. 33-60.

[2] World Health Organization. "Regulation of Medical Products in Algeria: A Comprehensive Review." WHO Press, 2020, pp. 15-40.

[3] Hillson, David. "Practical Project Risk Management: The ATOM Methodology." 2nd ed., Management Concepts Press, 2012, pp. 67-89.

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5. Success Factors

Critical success factors for parapharmaceutical sales digitalization encompass multiple dimensions beyond technology functionality, including organizational alignment around transformation objectives, leadership commitment demonstrated through resource allocation and personal behavior modeling, and cultural attributes that support innovation and continuous learning. Process considerations include workflow redesign that integrates digital capabilities into daily activities rather than adding them as separate tasks, performance management alignment that rewards digital adoption through recognition and compensation systems, and knowledge management approaches that capture and disseminate emerging best practices. Technology factors include solution usability that minimizes adoption barriers, integration quality that ensures consistent information across channels, and scalability that accommodates growing usage and evolving requirements. Organizations that address these interconnected factors through comprehensive transformation approaches rather than treating digitalization as merely technology implementation achieve substantially higher success rates (Kotter, 2012)[1].

Best practices for parapharmaceutical sales digitalization have emerged through industry experience, with successful organizations demonstrating several common approaches that contribute to effective implementation. These include establishing clear business objectives that guide technology selection and design decisions, involving end-users throughout development processes to ensure practical applicability, and developing phased implementation roadmaps that balance quick wins with long-term capability development. Additional best practices include creating clear data governance frameworks that ensure information quality across systems, establishing cross-functional governance models that align medical, regulatory, and commercial perspectives, and developing comprehensive change management approaches that address both rational and emotional adoption factors. Organizations that adapt these proven practices to their specific context rather than attempting wholesale implementation of external models achieve more contextually appropriate solutions (Hiatt, 2006)[2].

Continuous improvement processes represent essential components of sustainable digital transformation, enabling organizations to systematically refine approaches based on implementation experience rather than maintaining static solutions despite evolving requirements and capabilities. Effective improvement methodologies combine structured feedback collection from users and customers, regular performance analysis identifying specific improvement opportunities, and formalized processes for incorporating insights into solution enhancement. Leading organizations have implemented digital feedback mechanisms that capture improvement suggestions within the tools themselves, creating seamless pathways for users to contribute enhancement ideas during actual usage rather than relying on separate feedback channels. Those that establish clear ownership for ongoing digital

[1] Kotter, John P. "Leading Change." Harvard Business Review Press, 2012, pp. 45-70.

[2] Hiatt, Jeffrey M. "ADKAR: A Model for Change in Business, Government, and Our Community." Prosci Research, 2006, pp. 30-55.

capability evolution rather than focusing exclusively on initial implementation achieve more sustainable competitive advantage through continuous refinement rather than periodic major reinvestment (Cameron and Green, 2019)[1].

Section 2.4: Strategic Digital Innovation in Parapharmaceutical Sales

Looking beyond immediate implementation considerations, this concluding section adopts a strategic perspective on digital innovation within parapharmaceutical sales – examining how emerging technologies and evolving customer expectations may reshape industry practices in coming years. Innovation management frameworks provide structured approaches for identifying, evaluating, and implementing novel digital capabilities within established sales operations. The application of artificial intelligence and machine learning technologies warrants particular attention, with significant implications for customer segmentation, engagement personalization, and sales force optimization. Predictive analytics capabilities demonstrate growing relevance for inventory management, customer behavior anticipation, and market trend identification. Customer interaction technologies continue to evolve rapidly, creating new possibilities for engagement across both professional and consumer segments. By developing systematic approaches to technology scanning and capability development, parapharmaceutical organizations can position themselves to leverage emerging innovations rather than merely responding to competitive pressures. The section concludes with strategic recommendations for balancing immediate operational needs with longer-term innovation imperatives – a critical consideration for sustainable competitive advantage in an increasingly digital marketplace.

1. Innovation Management

Digital innovation strategies in parapharmaceutical sales require structured approaches that balance exploratory initiatives identifying emerging opportunities with exploitative efforts optimizing established capabilities. Effective innovation management establishes clear strategic frameworks that align digital experimentation with business objectives, preventing technology-driven initiatives disconnected from organizational priorities while encouraging appropriate risk-taking within defined boundaries. These strategies typically incorporate portfolio approaches that distribute investment across initiatives with varying risk profiles and time horizons, ensuring both immediate performance improvements and longer-term capability development. Leading parapharmaceutical organizations have implemented dedicated innovation funding mechanisms that support digital experimentation outside normal budgeting cycles, enabling faster response to emerging opportunities while maintaining appropriate governance over resource allocation (Singh and Hess, 2017)[2].

Technology scouting approaches provide systematic methodologies for identifying, evaluating, and selectively adopting emerging digital capabilities with potential

[1] Cameron, Esther, and Mike Green. "Making Sense of Change Management: A Complete Guide to the Models, Tools, and Techniques of Organizational Change." 5th ed., Kogan Page, 2019, pp. 85-110.

[2] Singh, Amritpal, and Thomas Hess. "How Chief Digital Officers Promote the Digital Transformation of Their Companies." MIS Quarterly Executive, vol. 16, no. 1, 2017, pp. 31-44.

parapharmaceutical sales applications. These approaches typically combine internal innovation activities with external ecosystem engagement including technology vendor relationships, academic partnerships, and startup collaboration programs that provide windows into emerging capabilities. Effective scouting processes establish clear evaluation criteria aligning technological capabilities with specific business needs, preventing "shiny object syndrome" where organizations adopt new technologies primarily for their novelty rather than their ability to address meaningful business challenges. Organizations that develop balanced technology portfolios incorporating both established solutions with proven reliability and emerging technologies offering differentiation potential achieve more sustainable innovation capabilities than those focusing exclusively on either cutting-edge or mature technologies (Davenport and Harris, 2017)[1].

Digital capabilities investment requires disciplined approaches that identify highest-value opportunities, secure appropriate resources, and establish clear accountability for value realization beyond initial implementation. Capability development strategies must address both technological aspects including platform selection and integration architecture and human dimensions including skill development, process redesign, and adoption incentives. Organizations increasingly recognize that sustainable digital advantage derives less from specific technology implementations that competitors can replicate and more from unique combinations of technology, process, and human capabilities that prove more difficult to imitate. Those that establish clear connections between digital investments and specific competitive advantages achieve greater executive support for transformation initiatives while maintaining implementation focus on capabilities offering meaningful differentiation rather than industry-standard functionalities (Syam and Sharma, 2018)[2].

2. Emerging Digital Technologies

Artificial intelligence applications in parapharmaceutical sales have expanded from experimental initiatives to mainstream capabilities that enhance multiple aspects of the customer engagement process. Machine learning algorithms analyze customer interaction patterns to identify optimal engagement strategies based on historical response data, enabling more personalized approaches than traditional segmentation models. Natural language processing capabilities extract insights from unstructured information sources including call notes, email correspondence, and social media content, surfacing relevant customer signals that might otherwise remain buried in overwhelming information volumes. Computer vision applications enhance visual content analysis, enabling salespeople to determine which presentation elements generate greatest engagement through attention tracking and reaction analysis. Organizations that implement AI capabilities as augmentation tools enhancing

[1] Davenport, Thomas H., and Jeanne G. Harris. "Competing on Analytics: The New Science of Winning." Harvard Business Review Press, 2017, pp. 89-123.

[2] Syam, Niladri, and Arun Sharma. "Waiting for a Sales Renaissance in the Fourth Industrial Revolution: Machine Learning and Artificial Intelligence in Sales Research and Practice." Industrial Marketing Management, vol. 69, 2018, pp. 135-146.

human judgment rather than replacement technologies eliminating human involvement achieve higher adoption rates and more effective outcomes (Syam and Sharma, 2018)[1].

Figure 5 : Trust perceptions and rejection of an objectively incorrect portfolio recommendation[2]

The chart presents a comparison of user trust in two different interface types: a traditional Website and a Conversational Robo Advisor. Trust is measured on a scale from 1 to 7, and the data also reflects whether users accepted or rejected the system's recommendations. The results clearly show that users reported higher levels of trust in the Conversational Robo Advisor than in the Website. The median trust level is noticeably higher for the Robo Advisor, and the box plot indicates that trust ratings are more consistent across users in this interface. In contrast, the Website interface exhibits a wider distribution of trust ratings, with more variability and a lower central tendency.

An additional layer of analysis comes from examining the individual data points, which distinguish between accepted and rejected recommendations. Blue dots indicate that users accepted the recommendation, while red dots represent rejections. Across both interfaces, accepted recommendations tend to cluster at higher trust levels, whereas rejected

[1] Syam, Niladri, and Arun Sharma. "Waiting for a Sales Renaissance in the Fourth Industrial Revolution: Machine Learning and Artificial Intelligence in Sales Research and Practice." Industrial Marketing Management, vol. 69, 2018, pp. 135-146.

[2] Hildebrand, C., & Bergner, A. AI-driven sales automation: Using chatbots to boost sales. NIM Marketing Intelligence Review, . (2019).11(2), Box 1. University of St. Gallen.

recommendations are mostly found in the lower trust range. This pattern highlights the strong relationship between trust and user compliance with system suggestions.

Overall, the data supports the idea that conversational interfaces, such as Robo Advisors, foster greater user trust compared to traditional websites. Furthermore, higher trust levels are closely associated with a greater likelihood of recommendation acceptance. These findings suggest that implementing conversational elements in digital advisory systems may be an effective strategy to enhance user engagement and decision-making compliance.

Machine learning applications extend beyond customer engagement optimization to address fundamental sales operations challenges including territory design, customer targeting, and resource allocation. Predictive models identify which healthcare professionals offer greatest potential value based on multiple factors beyond historical prescribing data, including practice characteristics, patient populations, and engagement receptivity signals. Recommendation engines suggest next-best-actions for specific customers based on interaction history, preference patterns, and situational context, enabling more relevant engagement than standardized playbooks. Organizations that implement explainable AI approaches providing transparency into recommendation rationales rather than black-box solutions achieve higher adoption rates among salespeople who require understanding of why specific actions are suggested before incorporating them into customer interactions (Davenport and Harris, 2017)[1].

Customer interaction technologies have evolved beyond basic digital communication tools to incorporate immersive capabilities that enhance engagement effectiveness despite physical distance limitations. Augmented reality applications enable more compelling product demonstrations by overlaying digital information onto physical environments, helping healthcare professionals visualize mechanisms of action, anatomical interactions, or patient benefit scenarios more effectively than traditional presentation methods. Virtual reality solutions create immersive educational environments for more engaging training on complex topics requiring spatial understanding or procedural demonstration. Interactive simulation tools enable healthcare professionals to explore scenario-based outcomes, helping them understand how therapeutic interventions might influence patient outcomes under different conditions. Organizations that select specific immersive technologies based on clear use cases rather than implementing them primarily for novelty value achieve substantially higher return on innovation investments (Chaffey and Ellis-Chadwick, 2019)[2].

[1] Davenport, Thomas H., and Jeanne G. Harris. "Competing on Analytics: The New Science of Winning." Harvard Business Review Press, 2017, pp. 89-123.

[2] Chaffey, Dave, and Fiona Ellis-Chadwick. "Digital Marketing: Strategy, Implementation and Practice." 7th ed., Pearson, 2019, pp. 250-290.

3. Future Trends

Predicted technological disruptions in parapharmaceutical sales include increasing automation of routine engagement activities, growing personalization through AI-driven insights, and expanding virtual interaction capabilities that reduce geographic limitations while enhancing engagement quality. Automated engagement systems will likely manage more standardized information requests and routine follow-up activities, enabling human salespeople to focus on complex consultative interactions requiring judgment and relationship skills. Hyper-personalization capabilities will evolve beyond current segmentation approaches to create dynamically adaptive engagement models that continuously refine themselves based on individual response patterns. Virtual engagement will increasingly incorporate sensory elements beyond visual and auditory communication, potentially including haptic feedback for product demonstrations and emotionally responsive interfaces that adapt to detected customer sentiment during interactions (Syam and Sharma, 2018)[1].

Global industry digital transformation trajectories suggest several emerging patterns likely to influence parapharmaceutical sales approaches in coming years, including increasing integration between promotional and medical information channels, growing emphasis on outcomes-based engagement models, and accelerating convergence of sales and service functions into unified customer experience teams. Data interoperability standards will likely continue expanding to enable more comprehensive healthcare ecosystem integration while maintaining appropriate privacy protections. Platform business models connecting multiple healthcare stakeholders through digital marketplaces may disrupt traditional linear sales approaches in certain therapeutic areas, creating both threats and opportunities for established parapharmaceutical organizations. (World Bank, 2020)[2].

Strategic recommendations for parapharmaceutical organizations navigating this evolving landscape include developing flexible capability architectures that can adapt to emerging requirements rather than rigid solutions optimized solely for current needs. Organizations should establish innovation governance models that balance experimentation with disciplined evaluation, preventing both excessive risk-taking and overly restrictive approaches that stifle necessary innovation. Talent development strategies should emphasize adaptive capabilities including analytical thinking, continuous learning, and cross-functional collaboration that will retain value despite specific technological changes. Partner ecosystem development represents a particularly important strategic focus, as the increasing complexity of digital capabilities makes exclusive internal development increasingly impractical for all but the largest organizations[3].

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[1] Syam, Niladri, and Arun Sharma. "Waiting for a Sales Renaissance in the Fourth Industrial Revolution: Machine Learning and Artificial Intelligence in Sales Research and Practice." Industrial Marketing Management, vol. 69, 2018, pp. 135-146.

[2] World Bank. "Digital Economy Assessment of Algeria." World Bank Publications, 2020, pp. 22-47.

[3] Kotter, John P. "Leading Change." Harvard Business Review Press, 2012, pp. 45-70.

Chapter 2 : PARAPHARMACEUTICAL INDUSTRY AND DIGITAL SALES

Conclusion

Chapter 2 applies the theoretical insights from Chapter 1 to the specific context of the parapharmaceutical industry, dissecting how sector-specific characteristics—such as complex regulations, specialized distribution channels, and diverse stakeholder interests—shape digital transformation efforts. The chapter reveals that digital sales in this sector are driven by the need to navigate regulatory constraints, deliver expert-driven customer engagement, and adapt to evolving consumer behaviors.

Digital transformation in parapharmaceutical sales is characterized by the adoption of e-detailing, virtual meetings, integrated digital marketing, and omnichannel strategies. These innovations have redefined professional engagement, allowing for more personalized, data-driven interactions with healthcare professionals and consumers. However, the chapter also underscores the persistent challenges: regulatory compliance, digital literacy gaps, and organizational resistance to change.

The analysis shows that companies succeeding in digital transformation are those that integrate digital tools with traditional sales strengths, invest in stakeholder management, and develop adaptive strategies that account for the unique Algerian market context. The chapter concludes that while digitalization offers significant opportunities for operational efficiency and customer engagement, its success depends on strategic alignment, regulatory navigation, and continuous capability development within the organization

CHAPTER 3 : DIGITAL SALES PROJECT LAUNCHING

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CHAPTER 3: EMPIRICAL STUDY – CASE OF TEMARA BIO COSM

Introduction

This third chapter is dedicated to the empirical phase of our research, which constitutes the core of our applied study. It focuses on analyzing the process and impact of sales digitalization within the Algerian parapharmaceutical company TEMARA BIO COSM, covering the evolution from 2020 to 2025. The objective of this empirical investigation is to observe, measure, and interpret the digital transition of the company's sales operations, understand the outcomes at various organizational levels, and identify both the enablers and obstacles encountered during this transformation.

As outlined in the first two theoretical chapters, digitalization has become a strategic imperative for companies seeking to remain competitive and relevant in an increasingly digital and data-driven economy. In the parapharmaceutical industry, where customer expectations are evolving rapidly and competition is intensifying, digital tools such as CRM systems, e-commerce platforms, mobile applications, and data analytics have revolutionized the way firms interact with clients, manage operations, and evaluate performance. Therefore, the primary goal of this chapter is to apply these theoretical insights in a real-world context to assess their validity and practical application.

The choice of TEMARA BIO COSM as a case study was both deliberate and relevant. Founded with a strong market orientation and innovation-driven vision, the company represents a compelling example of a local enterprise that has progressively embraced digital technologies to enhance its sales processes. Its activity within the parapharmaceutical sector, which is itself undergoing significant regulatory, technological, and consumer behavior shifts, makes it a particularly interesting subject of study. Moreover, TEMARA BIO COSM has demonstrated an openness to digital change and a willingness to collaborate in academic research, providing access to valuable internal data and facilitating communication with employees and managers. These factors reinforce the validity and richness of the case study.

To achieve the research objectives, a triangulated methodology was implemented, combining qualitative and quantitative techniques. The first method employed was direct observation, which involved analyzing internal workflows, digital platforms, and the usage of technological tools over time. This helped us identify patterns, strategic turning points, and the nature of digital infrastructure upgrades. The second method was a structured questionnaire, distributed to the company's employees to gather quantitative insights into their experiences, perceptions, and attitudes toward digitalization. This allowed us to evaluate the degree of acceptance, the effectiveness of training efforts, and any resistance encountered during the transition. The final component was semi-structured interviews with key managers, including department heads and project coordinators. These interviews offered qualitative insights into decision-making processes, digital strategy formulation, implementation challenges, and reflections on outcomes.

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The triangulation of these methods provides a multi-dimensional perspective on the company's digital journey, ensuring that the results are not only measurable but also deeply contextualized. The analysis is guided by key theoretical concepts introduced earlier in the thesis, such as project management methodologies, change management frameworks, digital sales tools, and performance indicators. This approach allows us to compare the real evolution of TEMARA BIO COSM against best practices and academic models, thereby highlighting both alignment and divergence points.

In summary, this chapter seeks to bridge the gap between theory and practice by offering a comprehensive, evidence-based analysis of TEMARA BIO COSM's sales digitalization. It provides an in-depth look at the company's internal transformation, explores the human and technical dynamics involved, and culminates in actionable insights and strategic recommendations for sustaining and enhancing digital integration in the future.

Section 3.1: Company Overview – TEMARA BIO COSM

1.General Presentation

Témara Bio Cosm is a fully Algerian company specializing in para-pharmaceutical, nutraceutical, and cosmetic production. It is located in the municipality of Blida, in the Blida province.

1.1History and Founding

Founded in 2016 by Amel BRAZI and Sihem Rhym BRAZI, Témara Bio Cosm began its production and commercialization activities in late 2019. The company's slogan is "Nature at the Service of Well-being." It was established with the primary goal of manufacturing and marketing 100% Algerian products of superior quality at affordable prices for consumers, in a market where most competitors were imported brands.

1.2Mission, Vision, and Values

Mission: To provide natural or near-natural solutions that are safe and innovative in para-pharmacy, cosmetics, and nutrition, with a focus on quality, accessibility, and improving users' health.

Vision: To become an Algerian, African, and international benchmark in para-pharmaceutical, nutraceutical, and cosmetic products by building a sustainable and responsible business model, particularly in terms of environmental protection and human commitment.

Values:

- Excellence: Commitment to quality in every formulation and batch produced.

- Transparency: Honest communication with professionals, consumers, and partners.

- Innovation: Products formulated through a full-process approach, designed for efficacy and safety.

- Respect for Life and the Environment: Cruelty-free formulas, adherence to ethical standards, resource optimization, and waste reduction. Slogan: Zero Paper, Zero Waste, Zero Stock.

- Solidarity: Positive social impact through local employment, training, and development. Commitment to causes related to economic, social, and medical development in Algeria.

- Listening & Kindness: A corporate culture focused on well-being, collaboration, and humanity, with the slogan: "Win-win starts internally first, if we want it to succeed with our clients."

1.3Market and Product Segments

Témara Bio Cosm operates primarily in the Algerian market, where it has established itself as a trusted producer of high-quality para-pharmaceutical, nutraceutical, and cosmetic products. The company's focus on Algeria aligns with its mission to provide affordable, locally manufactured alternatives to imported brands, catering to the specific needs of Algerian consumers. By concentrating on this market, Témara Bio Cosm leverages its understanding of local preferences, regulatory requirements, and distribution channels to maintain a strong competitive edge.

The company's product portfolio is organized into three main product families, each addressing distinct consumer needs. Body hygiene products, such as the TEMARA ROSE anti-lice solution and STOP PIQUE mosquito repellent, offer practical, everyday solutions with natural formulations. These products emphasize safety and efficacy, appealing to health-conscious families. The natural skincare line includes items like the NEZFRANE nasal wash, which combines eucalyptus and chamomile for therapeutic benefits, reflecting the company's commitment to blending nature with science. Lastly, the dietary supplements category, featuring products like NUTRIMEL Appétit Boost and NAUSE'VOM, targets nutritional and digestive health, catering to both children and adults.

This segmentation allows Témara Bio Cosm to address a broad spectrum of consumer needs while maintaining a cohesive brand identity rooted in natural, sustainable, and innovative solutions. By focusing on these core product families, the company not only meets current market demands but also positions itself for future growth, whether through product line extensions or geographic expansion. The emphasis on local production and affordability further strengthens its appeal in the Algerian market, where consumers increasingly value quality and accessibility.

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1.4Currently Promoted Brands:

PRODUCT	DESCRIPTION
TEMARA ROSE: ANTI POUX ET LENTES 100ml	Anti-lice and nit solution with spray applicator and comb.
CUR BETADINE Solution Buccale 1% 120ml	Antibacterial, antiviral, and antifungal mouthwash with 1% PVP.
CUR COLIC Eau digestive 120ml	Digestive water.
NUTRIMEL Appétit Boost 120ml (Banana flavor, from 3 years)	Multivitamin suspension with fenugreek for appetite stimulation.
NAUSE'VOM 100ml (Adults & Children from 1 year, suitable for pregnant women)	Ginger-based suspension for nausea, vomiting, and motion sickness.
NEZFRANE Lavage Nasal Hypertonique Eucalyptus & Camomille 30ml	Hypertonic nasal wash with eucalyptus and chamomile.
STOP PIQUE Antimoustique 120ml 100% Naturel	Natural mosquito repellent and soothing spray.
FONGINEX Spray désinfectant Pied et Chaussure Antifongique Antiseptique 120ml	Antifungal and antiseptic spray (100% natural, with tea tree essential oil) for feet, nails, and shoes.

Table(1): Témara Bio Cosm: Product Portfolio Overview

Brands Available Outside Promotions:

- Stérilex hydro-alcoholic gel.

1.5Organizational Structure:

The following figure presents the organizational hierarchy of Témara Bio Cosm, outlining key departments, roles, and reporting lines:

1. Direction Générale (General Management)

The top tier of the hierarchy, overseeing all departments.

2. Coordinatrice Communication & Marketing (Marketing & Communications Coordinator)

Role: Manages internal and external communication and marketing strategies.

Reports directly to the General Management.

3. Département Production (Production Department)

Director of Production leads the team.

Team size: 6 collaborators.

Focus: Manufacturing and quality control of para-pharmaceutical, nutraceutical, and cosmetic products

4. Département Réglementaire Pharmaceutique (Pharmaceutical Regulatory Department)

Includes an Assistante Technique (Technical Assistant).

Sub-departments:

-Département Vertes ("Green Department," sustainability/eco-initiatives) led by a Director.

-Ressources Humaines (HR) managed by a HR Coordinator.

5. Coordinateur Commercial (Commercial Coordinator – Back Office Business Intelligence)

Role: Oversees sales strategy, data analysis, and commercial operations.

Sub-teams under this role:

-Force de Vente (Sales Force):

3 Superviseurs Régionaux (Regional Supervisors).

8 Représentants Médico-Commerciaux (sales representatives with medical/commercial expertise).

Agent de Facturation (Billing Agent).

Chargée des Stocks (Inventory Manager).

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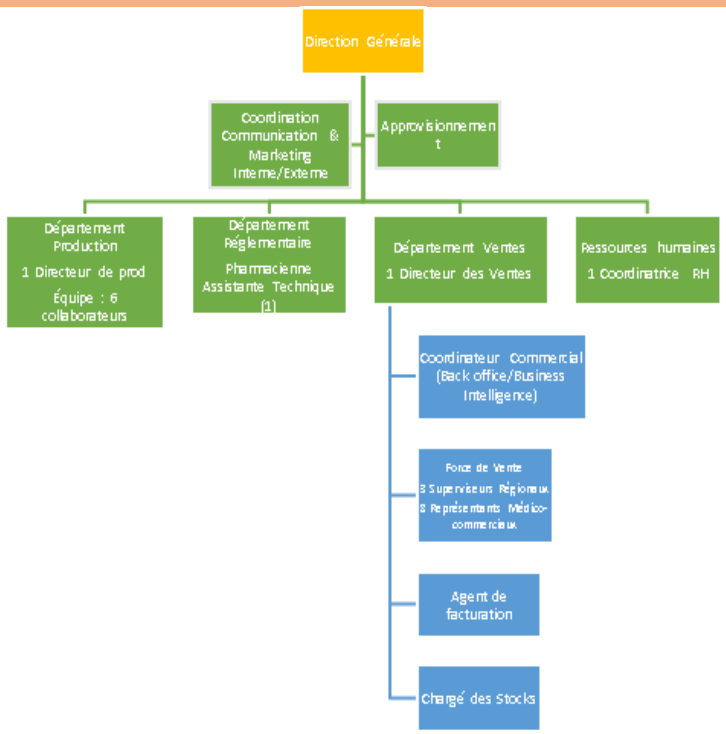

Figure (1) : the organizational hierarchy of Témara Bio Cosm

1.6Key Observations to the organizational hierarchy of Témara Bio Cosm

The organizational structure of Témara Bio Cosm reveals a well-defined hierarchy that balances functional specialization with strategic priorities. Below is a detailed breakdown of the key observations:

1. Functional Specialization with a Flat Hierarchy

The company adopts a flat yet segmented structure, where departments operate with clear roles while maintaining streamlined communication. The Direction Générale (General Management) oversees all functions, ensuring alignment with corporate goals. Departments such as Production, Regulatory Affairs, HR, and Commercial Operations are distinctly separated, allowing for focused expertise. For instance, the Production Department, led by a director and supported by five collaborators, emphasizes efficiency in manufacturing and quality control—critical for a company dealing with para-pharmaceutical and cosmetic products. This structure minimizes redundancy and enhances accountability.

2. Strong Emphasis on Sales and Market Expansion

The Commercial Coordinator plays a pivotal role, integrating business intelligence (BI) into sales strategies. This indicates a data-driven approach to market analysis, customer segmentation, and performance tracking. The sales force is robust, consisting of three regional supervisors and eight medical-commercial representatives, suggesting a focus on pharmacy and retail distribution channels. The inclusion of a Billing Agent and Inventory Manager further supports operational efficiency in sales logistics. This setup reflects the company's

ambition to expand its market share, particularly in Algeria, where local competition and imported brands dominate.

3. Regulatory Compliance and Sustainability Integration

The presence of a Pharmaceutical Regulatory Department underscores the company's commitment to legal and safety standards, which is essential for para-pharmaceutical products. The department likely handles certifications, quality audits, and compliance with health regulations. Additionally, the "Département Vertes" (Green Department) aligns with the company's stated values of environmental responsibility (e.g., "Zero Waste, Zero Paper"). This department may oversee sustainable packaging, eco-friendly sourcing, or waste reduction initiatives—a growing differentiator in the cosmetics and nutraceutical industry.

4. Digital Transformation Opportunities

While the structure is functional, there are opportunities to leverage digital tools for greater efficiency. For example:

The Commercial Coordinator's BI role could benefit from advanced CRM or analytics platforms to optimize sales forecasting.

The Inventory Manager might integrate an automated stock management system to reduce manual errors and improve supply chain transparency.

The Marketing & Communications Coordinator could adopt digital marketing tools (e.g., social media analytics, SEO) to enhance brand visibility.

These upgrades would align with the company's vision of innovation and operational excellence.

5. Human-Centric Culture

The HR Coordinator and the company's core values (e.g., "Listening & Kindness") highlight a people-first approach. This is reflected in initiatives like local employment, training programs, and internal collaboration ("Win-win starts internally"). Such a culture not only boosts employee morale but also strengthens customer trust, as ethical practices and transparency are prioritized.

At the end, Témara Bio Cosm's organizational structure is strategically designed to support its mission of delivering high-quality, sustainable products while fostering growth. By further investing in digital transformation and sustainability initiatives, the company could enhance its competitive edge in Algeria and beyond.

1.7Departments Involved in Sales and Digital Transformation:

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Témara Bio Cosm has strategically aligned its Commercial Service as the primary department responsible for driving sales, while adopting a company-wide approach to digital transformation to enhance efficiency and competitiveness.

Sales Department: Commercial Service

The Commercial Service serves as the backbone of Témara Bio Cosm's revenue generation. This department is tasked with developing and executing sales strategies to promote the company's diverse product portfolio, which includes para-pharmaceutical, nutraceutical, and cosmetic products. Through its team of medical-commercial representatives and regional supervisors, the department maintains strong relationships with distributors, pharmacies, and retailers across Algeria. Additionally, the Billing Agent and Inventory Manager ensure smooth order processing and stock management, minimizing delays and optimizing supply chain operations. The integration of business intelligence under the Commercial Coordinator allows for data-driven decision-making, enabling the team to identify market trends, adjust pricing strategies, and tailor promotions to meet consumer demand. By focusing on both traditional and emerging sales channels, the Commercial Service plays a pivotal role in achieving the company's growth objectives.

Digital Transformation Across All Departments

Témara Bio Cosm recognizes that digital transformation is not confined to a single department but requires a collaborative effort across the entire organization. The company has embarked on a journey to integrate digital tools and technologies into every facet of its operations. For instance, the Production Department leverages automation and IoT sensors to enhance manufacturing precision and quality control, aligning with the company's commitment to excellence. The Regulatory Affairs Department utilizes compliance software to streamline documentation and accelerate approvals, ensuring adherence to industry standards. Meanwhile, the Marketing and Communication team employs digital platforms—such as social media and e-commerce—to amplify brand visibility and engage with consumers.

The Commercial Service benefits significantly from this transformation, adopting CRM systems to centralize customer data and optimize sales processes. Even the HR Department contributes by implementing digital training programs to upskill employees, fostering a culture of continuous learning. Notably, the "Vertes" (Sustainability) Department uses digital tools to monitor and reduce the company's environmental footprint, reinforcing its eco-friendly values.

Synergy and Future Outlook

The interplay between the Commercial Service and digital transformation initiatives creates a powerful synergy. Data-driven insights from digital tools empower the sales team to make informed decisions, while automated processes in inventory and billing reduce operational bottlenecks. This holistic approach not only enhances current performance but also positions Témara Bio Cosm for scalable growth, particularly as it explores expansion into African and international markets. However, the success of this transformation hinges on ensuring all

departments adapt cohesively to technological advancements. To address this, the company may consider phased implementations and cross-functional training programs. By embracing digital innovation at every level, Témara Bio Cosm is poised to achieve its vision of becoming a global leader in its industry.

Section 3.2: Evolution of Digital Sales Strategy

1.Digitalization Phase 1 (2020-2023):

Between 2020 and 2022, Témara Bio Cosm's digitalization journey was in its infancy-more a period of transition than true transformation. The COVID-19 pandemic played a defining role: the company's priorities shifted almost entirely to crisis management, focusing on the rapid production of hydroalcoholic gel and antiseptics to meet urgent public health needs. During this time, digital sales tools and digital sales tracking were simply not a priority; with a small team and no dedicated field representatives, the business model remained rooted in traditional, manual operations.

Sales activities relied on face-to-face interactions, phone calls, and paper-based processes. Orders were taken manually, with the commercial team relaying information to the back office for verification and fulfillment. This process, while familiar, was time-consuming and often inefficient. Employees and management alike noted several key pain points: long delays between order receipt and delivery, difficulty tracking client communications, frequent time lost on unproductive client visits, and a lack of visibility into sales performance or customer data. There was little to no follow-up after client visits, and communication was often slow and fragmented.

On the digital front, the company's presence was limited to a basic website and social media pages (Facebook, Instagram), serving mainly as product showcases rather than true sales or engagement platforms. No dedicated digital sales tools or e-commerce solutions were in place, and stock management remained manual.

The turning point came in early 2023, as Témara Bio Cosm began to expand its commercial team-adding eight medical sales representatives and three supervisors. This growth brought a higher volume of orders, more customer interactions, and a greater need for structured follow-up and complaint management. Suddenly, the limitations of manual processes became impossible to ignore, and digitalization shifted from a "nice-to-have" to a business necessity.

From 2023 onward, the company began experimenting with digital tools to support sales tracking and operations. Google Forms was introduced as a first step for recording orders and managing basic sales data. This modest digital leap allowed for better tracking of client coverage, more organized order management, and the beginnings of data-driven decision-making. At the same time, the company started planning a broader digital transformation: the old website was upgraded from a simple showcase to a platform capable of supporting both B2B and B2C sales, with dedicated spaces for clients and partners. This set the stage for the eventual launch of online sales and a full e-commerce experience by 2026, with the goal of moving to exclusively online sales by 2030.

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Despite these advances, much of the sales process in Phase 1 remained manual. Product listings were still presented to clients on paper, and order validation, stock checks, and delivery scheduling required multiple phone calls and manual interventions. Any order cancellation triggered a chain of calls and follow-ups to understand the reasons and improve future offers-a process that was thorough but labor-intensive.

Digitalization Phase 1 at Témara Bio Cosm was characterized by a gradual shift from traditional, manual sales and operational methods toward the first practical steps of digital transformation. The pandemic delayed the adoption of digital tools, but also highlighted their necessity. By the end of 2023, the company had laid the groundwork for more mature digitalization: it had begun digitizing sales tracking, upgraded its digital presence, and started planning for a customer-centric, data-driven future. The lessons learned-about the limits of manual processes, the importance of responsive client management, and the need for scalable digital infrastructure-would shape the next, more ambitious phases of Témara Bio Cosm's digital journey.

2.Digitalization Phase 2 (2023-now):

2.1. Introduction

The dataset comprises detailed sales visit records from Témara Bio Cosm's sales representatives documenting interactions with wholesale pharmaceutical clients (Grossistes Para-pharmaceutiques and Super GROs). These records span multiple years and regions, offering insights into the company's traditional sales methodologies. The data tracks timestamps, client details, stock levels, order placements, supplier information, and post-visit observations through a manual reporting system based on Google Forms that representatives completed after each client interaction.

2.2. Client Segmentation and Prioritization

The sales team employs a multi-faceted categorization system:

Purchasing Potential Tiers:

A/Gold: High-value clients with consistent, large orders (e.g., CMPS PLUS, YAHI PHARM) receiving priority service and frequent visits

B/Silver: Mid-tier clients with moderate but stable demand (e.g., ETS MONCEF) visited regularly but with less urgency

C/Wood: Low-priority clients with irregular or minimal orders, visited sporadically

Business Type Classification:

Grossiste Para-pharmaceutique: Standard pharmaceutical wholesalers

Super GRO: Large-scale distributors with higher purchasing power requiring bulk order negotiations

Geographic Segmentation:

Sales representatives assigned to specific regions (e.g., BLIDA, ORAN, ALGER) to optimize travel efficiency

This segmentation helps prioritize sales efforts and organize client visits to focus on more profitable or promising customers.

2.3. Sales Visit Structure and Workflow

-Pre-Visit Preparation:

Review past orders and stock reports

Identify high-rotation products and slow-moving items needing promotions

-During the Visit:

Stock Verification: Manually check inventory levels at client locations

Order Negotiation: Discuss replenishment needs ("Décrocher un BDC" – secure a purchase order)

Issue Resolution: Address client concerns (e.g., expired stock, late deliveries)

-Post-Visit Documentation:

Complete Google Forms with visit details

Record client information, business type, and purchasing potential

Document stock availability and order placements

Specify which wholesaler received orders

Set follow-up objectives (e.g., "Faire un bon de commande" - place an order)

Provide self-assessment of performance (e.g., "J'ai été moyennement bien" - "I did moderately well")

Note observations for future reference

2.4. Stock and Order Management

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The system relies heavily on manual processes:

Manual Stock Verification: Physical inventory checks during visits (e.g., "Etat des Stocks CUR COLIC: 56 units")

Order Placement: Negotiation based on observed depletion rates (e.g., "Cmd CUR BETADINE: 40 units")

Supplier Coordination: Orders routed through preferred suppliers (e.g., Office Pharm, Iris Pharm), sometimes with exclusive agreements (e.g., "TBC only")

2.5. Strengths of the New Approach

Personalized Client Relationships: Face-to-face interactions build trust and loyalty

Detailed Tracking: Manual logs provide granular insights into client behavior

Flexibility: Sales representatives can adjust strategies on the spot (e.g., offering discounts for slow-moving stock)

Structured Data Collection: Basic framework for recording key information about client interactions

Self-reflection Component: Representatives evaluate their own performance and set objectives

2.6. Limitations and Challenges

Time-Consuming Processes: Manual data entry and in-person visits slow down operations

Human Errors: Risk of inconsistent or incomplete records affecting decision-making

Reactive Approach: Orders placed after stock depletion instead of using predictive demand forecasting

Supplier Dependence: Over-reliance on certain suppliers creates bottlenecks

Client Resistance: Some clients refuse orders due to past issues (e.g., expired stock)

Lack of System Integration: No connection to inventory or CRM systems hampering real-time decision-making

Data Accuracy Concerns: Manually collected stock information quickly becomes outdated

Repetitive Tasks: Representatives perform similar actions during visits, indicating inefficiency

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Limited Performance Tracking: Subjective self-assessment without structured evaluation metrics

Reliance on Individual Initiative: Follow-ups and decisions depend on personal diligence rather than automated systems

Section 3.3: Reaserche Methodology

To explore the effective implementation of digital sales transformation in the parapharmaceutical sector—specifically at TEMARA BIO COSM—this study adopts a case study approach using a mixed-methods design. This approach allows us to combine both quantitative insights (based on structured questionnaires) and qualitative understanding (from semi-structured interviews) to analyze not only what is happening but also why and how it happens. The limited size of the company (20 employees, including 8 in sales) makes a complete internal observation feasible and valuable.

3.1 Methodological Framework

Case Study Design

A case study methodology is ideal when the aim is to explore in depth a single organization in a real-life context , it’s a comprehensive research approach that involves the systematic investigation of a specific bounded system or multiple bounded systems over time through detailed, in-depth data collection involving multiple sources of information. This methodology examines contemporary phenomena within their real-life context, especially when the boundaries between phenomenon and context are not clearly evident. Case studies can be single or multiple, holistic or embedded in design, and are particularly valuable when the researcher has little control over events and seeks to answer "how" or "why" questions.[1]

Case studies typically employ multiple data collection methods, including observations, interviews, documents, and artifacts, to create a triangulated research strategy that strengthens the validity of findings. The approach can be exploratory (defining questions for further research), descriptive (providing narrative accounts), or explanatory (testing theories and establishing causal relationships) This methodology is distinguished by its focus on particularization rather than generalization, offering thick description and experiential understanding of complex issues within specific contexts[2]

Mixed-Methods Justification

- Quantitative methods provide structured, comparable insights across staff.

[1]Yin, R. K. (2018). Case study research and applications: Design and methods (6th ed.). SAGE Publications, pp. 15-17

[2]Stake, R. E. (2005). "Qualitative case studies." In N. K. Denzin & Y. S. Lincoln (Eds.), The SAGE handbook of qualitative research (3rd ed., pp. 443-466). SAGE Publications.

- Qualitative methods uncover the strategic, emotional, and organizational nuances behind the figures.

- This combination strengthens the credibility and depth of the analysis, especially when working with a small population.

3.2 Quantitative Approach

Theoretical Basis

Quantitative research is a systematic empirical investigation of observable phenomena via statistical, mathematical, or computational techniques. It involves the collection of numerical data that can be subjected to statistical analysis to identify patterns, relationships, and causality between variables. This approach is rooted in positivist and post-positivist paradigms that emphasize objectivity, measurement, and the testing of hypotheses through deductive reasoning.[1]

Quantitative methodologies employ structured research instruments such as surveys, questionnaires, and experiments to collect measurable data. These methods rely on random sampling techniques to ensure representativeness and use statistical tests to determine significance and generalizability of findings to broader populations. The research process typically follows a linear path: developing hypotheses, designing the study, collecting data, analyzing results, and drawing conclusions. Researchers maintain objective distance from subjects to minimize bias, and validity and reliability are central concerns in ensuring the quality of the research . Quantitative approaches are particularly suitable for examining cause-and-effect relationships, making predictions, and testing theoretical models through statistical inference. [2]

Objectives

- Measure levels of awareness, training, and resistance to digital tools.

- Evaluate how digitalization affects key sales KPIs (conversion, time, satisfaction).

- Identify recurring obstacles and perceived benefits.

Data Collection Tools

Survey 1: HR Resistance & Digital Adoption

- Targeted all 20 employees.

- Focused on employee readiness, digital habits, confidence levels, and willingness to change.

[1]Creswell, J. W., & Creswell, J. D. (2018). Research design: Qualitative, quantitative, and mixed methods approaches (5th ed.). SAGE Publications, pp. 155-181

[2]Babbie, E. R. (2020). The practice of social research (15th ed.). Cengage Learning, pp. 90-123

- Sections: General Info | Awareness & Training | Usage & Adoption | Resistance | Suggestions.

Survey 2: Impact of Digitalization on Sales Performance

- Administered to the 8 sales staff.

- Focused on the concrete effects of digitalization on conversion rates, customer experience, scheduling, and operational costs.

- Included open-ended and closed questions on client portfolios and tool usage.

Data Analysis

Survey	Population	Analysis Type	Purpose
Survey 1	20 employees	Descriptive statistics (frequencies, %), thematic review of open-ended responses	Gauge overall employee engagement and challenges
Survey 2	8 sales reps	Frequency analysis, direct KPI comparisons (before vs. after), open-ended response coding	Evaluate performance impacts and sales team feedback

Table (2): Summary of Employee and Sales Team Survey Analyses

Due to the small sample, advanced inferential statistics were not used. The focus was on capturing clear, actionable trends.

3.3 Qualitative Approach

Theoretical Basis

Qualitative research is an interpretive, naturalistic approach to understanding phenomena in context-specific settings, where the researcher does not attempt to manipulate the phenomenon of interest but rather seeks to reveal the meanings people attribute to their experiences. This methodology is concerned with developing explanations of social phenomena and aims to help understand the social world in which we live and why things are the way they are.[1]

[1] Denzin, N. K., & Lincoln, Y. S. (2018). "Introduction: The discipline and practice of qualitative research." In N. K. Denzin & Y. S. Lincoln (Eds.), The SAGE handbook of qualitative research (5th ed., pp. 1-26). SAGE Publications

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Qualitative research collects non-numerical data through methods such as in-depth interviews, participant observation, field notes, reflective journals, and analysis of documents and materials. The approach is characterized by its inductive nature, developing concepts and theories from patterns observed in the data rather than testing pre-existing hypotheses. Researchers often engage directly with participants in their natural settings, recognizing that their own backgrounds and positions may influence their interpretations and acknowledging this reflexively.[1]

The qualitative tradition encompasses multiple theoretical perspectives including phenomenology (studying lived experiences), ethnography (examining cultural groups), grounded theory (developing theory from data), narrative inquiry (analyzing stories), and case studies. Analysis typically involves identifying themes and patterns in textual data through processes such as coding, categorizing, and constant comparison. Trustworthiness in qualitative research is established through credibility, transferability, dependability, and confirmability rather than the validity and reliability criteria used in quantitative approaches[2]

Objectives:

- Understand how managers planned and implemented digitalization.

- Explore how frontline teams adapted, resisted, or supported the transition.

- Identify improvement areas in training, communication, and tool design.

Interview Guide	Participants	Themes Explored
Management & Decision-Makers	4 senior staff	Strategic vision, investment, timeline, KPIs, risk management
Sales & HR Teams	6 employees	Tool usage, operational change, training impact, resistance, support mechanisms

Table (3): Interview Guide Summary

Data Analysis

- Interview transcripts were manually coded and analyzed using thematic categorization.

- Themes such as “resistance,” “productivity,” “customer feedback,” and “training gaps” were identified and compared with survey data for consistency.

[1]Patton, M. Q. (2015). Qualitative research & evaluation methods (4th ed.). SAGE Publications, pp. 64-66

[2]Maxwell, J. A. (2013). Qualitative research design: An interactive approach (3rd ed.). SAGE Publications, pp. 104-120

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3.4 Summary Tables and justification

Method	Sample Size	Tool Used	Key Objective
Survey 1	20 employees	HR Digital Adoption Questionnaire	Identify resistance, readiness, and adoption issues
Survey 2	8 sales staff	Digital Sales Impact Questionnaire	Measure sales-related digital KPIs
Interviews	10 participants	Semi-structured Interview Guides	Understand strategy, tools in practice, and HR roles

Table(4): Method Overview

Theme	**Explored via Survey**	**Explored via Interview**
Awareness & Training	✓	✓
Tool Usage Frequency	✓	✓
Customer Experience	✓	✓
Employee Resistance	✓	✓
ROI & Strategic Planning	✗	✓
Productivity Impact	✓	✓

Table 5: Key Themes by Method

In accordance with the mixed-methods research design adopted for this empirical study on the digitalization of sales at TEMARA BIO COSM, the selection of NVivo and SPSS as primary analytical tools was both methodologically and practically warranted. Their deployment aligns with established academic standards for ensuring analytical rigor, depth, and triangulation in organizational research.

Use of NVivo for Qualitative Data Analysis

NVivo was employed to systematically analyze qualitative data derived from semi-structured interviews, open-ended survey responses, and observational notes. The rationale for its use is grounded in several key considerations:

Systematic Thematic Analysis: NVivo enables the efficient coding and categorization of large volumes of textual data, facilitating the identification of recurrent themes, patterns, and relationships within the dataset. This is particularly pertinent for exploring complex phenomena such as employee adaptation, resistance to change, and strategic decision-making in digital transformation contexts.

Transparency and Auditability: The software maintains a transparent record of the analytical process, including code development, thematic hierarchies, and memoing. This enhances the

dependability and confirmability of the qualitative findings, which are critical criteria for trustworthiness in qualitative research.

Data Visualization: NVivo's capabilities for generating cognitive maps, word frequency charts, and thematic matrices were instrumental in visually representing the centrality of digital tools, operational impacts, and the evolution of digitalization within the organization.

Triangulation: The integration of multiple qualitative sources (e.g., management interviews, sales team feedback, open-ended survey items) within NVivo allowed for robust cross-verification of findings, thereby reinforcing the credibility and depth of the analysis.

Use of SPSS for Quantitative Data Analysis

SPSS was selected for the analysis of quantitative data collected through structured questionnaires administered to employees and sales staff. The justification for its use is as follows:

Descriptive and Inferential Statistics: SPSS facilitated the computation of descriptive statistics (e.g., frequencies, means, standard deviations) to summarize key variables such as digital tool usage, perceived productivity, and operational cost reductions. It also enabled the application of inferential tests (e.g., chi-square, correlation, regression) to examine relationships between variables and to test specific research hypotheses.

Data Management and Visualization: The software's robust data management features allowed for efficient handling, cleaning, and recoding of survey responses. Its graphical outputs (e.g., bar charts, histograms) were utilized to effectively communicate findings in the results section.

Reliability and Validity: Employing SPSS ensured that the quantitative analysis adhered to methodological standards of reliability and validity, supporting the generalizability and objectivity of the study's conclusions.

Suitability for Small Samples: Given the relatively modest sample size, SPSS's capacity for handling both small and large datasets, and for conducting appropriate non-parametric tests, was particularly advantageous.

SPSS was essential for the rigorous statistical analysis of quantitative data, enabling the study to quantify the impact of digitalization on sales performance, employee adaptation, and operational efficiency.

3.5 Ethical Considerations

- Voluntary Participation: All staff participated voluntarily.

- Confidentiality: Data was anonymized and aggregated; no identifying information is disclosed.

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- Company Authorization: The research was approved and supported by TEMARA BIO COSM management.

- Use of Multilingual Tools: Surveys and interviews were conducted in French, English, and Arabic to respect participant preferences.

This methodology provided a complete, coherent, and contextually grounded approach to analyzing digital transformation at TEMARA BIO COSM. The small size of the organization enabled a full internal study that combined hard data with personal insight. This makes the results particularly rich and directly applicable to improving the company's digitalization strategy.

Section 3.4: Research Results

3.4.1Qualitative Interview Data

3.4.1.1Interview Guide Results For Management & Decision-Makers (Strategic & Economic Impact Analysis)

Descriptive analysis

1. Thematic Node Structure

Parent Nodes (5 overarching themes):

1. Digitalization Timeline
2. Operational Impact
3. Implementation Challenges
4. Strategic Outcomes
5. Future Directions

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Child Nodes (Sub-themes):

Parent Node	Child Nodes	Frequency (n=4)
Digitalization Timeline	Pandemic Acceleration (2020)	3/4 (75%)
	Maturity Phase (2025)	4/4 (100%)
Operational Impact	CRM Integration	3/4 (75%)
	Process Automation	4/4 (100%)
Implementation Challenges	Employee Adaptation	3/4 (75%)
	Internet Infrastructure Quality	2/4 (50%)
Strategic Outcomes	Sales Growth (CA)	2/4 (50%)
	Customer Segmentation (PF)	3/4 (75%)

Table(6): parent and child nodes with frequencies

Digitalization evolved from a pandemic-driven transition (2020) to strategic maturity (2025). Process automation was universally adopted, while internet quality emerged as a persistent technical barrier.

2. Timeline Comparison (2020 vs. 2025)

Aspect	2020	2025
Focus	Crisis management (e.g., sanitizers)	Customer-centric AI/CRM integration
Tools	Basic forms	Advanced CRM, predictive analytics
Workforce	Minimal staff reliance	Expanded sales teams (8+ reps)
Customer Reach	Geographic limitations	Nationwide PF segmentation

Table (7): Digitalization Evolution

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Post-2023, digitalization shifted from reactive pandemic adaptation to proactive market expansion, with CRM systems enabling granular customer targeting.

3. Key Motivations

Driver	Frequency	Example Quote
Pandemic Urgency	75%	"La pandémie a agi comme un catalyseur"
Process Efficiency	100%	"Automatisation des tâches répétitives"
Customer Expansion	75%	"Atteindre les bons clients au bon moment"

Table (8): Drivers of Digitalization

While COVID-19 initiated digital adoption, long-term operational efficiency and customer targeting became primary drivers by 2025.

4. Implementation Barriers

Challenge	Frequency	Role-Specific Impact
Employee Adaptation	75%	Production Manager: "30% active use"
Internet Quality	50%	Founder: "Réseau internet défaillant"
ROI Measurement	75%	"ROI non calculable" (Founder)

Table (9): Challenges Matrix

Adaptation curves and infrastructure limitations hindered full tool utilization despite training efforts. ROI quantification remained challenging for leadership.

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5. Strategic Outcomes

Metric	Improvement	Supporting Quote
Sales Processing	24/7 availability → 30% CA growth	"Disponibilité 24/7... achats impulsifs"
Error Reduction	25% fewer operational delays	"Réduction des erreurs humaines"
Customer Retention	+15% YoY via PF segmentation	"Segmentation du PF plus pertinente"

Table (10): Impact Summary

Digital tools enhanced revenue streams and operational precision but required complementary human oversight for complex client interactions.

6. Future Directions: **Planned Improvements**:

- **AI Optimization**: "Renforcer l'efficacité via l'IA" (Production Manager)
- **Infrastructure Upgrades**: Priority on internet reliability (Founder)
- **Phased Training**: "Accompagnement personnalisé" for legacy staff

Respondents emphasized balancing technological advancement with workforce upskilling to sustain digital gains.

7. Role-Specific Insights

Role	Digital Priority	Key Concern
Production Manager	Process automation (100%)	Integration complexity
Founder	Market expansion (75%)	ROI justification
Client Support	Tool usability (50%)	Customer resistance

Table (11): Role Comparison Matrix

Leadership roles prioritized strategic growth metrics, while operational roles focused on tool functionality and adoption.

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Lexical Approach: Word Frequency Analysis

French Term	Frequency	English Translation	Context/Explanation
réponse	16	response	Refers to answers in the dataset (often in metadata)
rhym	15	(name)	Name of a respondent, appears frequently
outils	14	tools	Digital tools central to digitalization
client	11	client/customer	Key focus of digital transformation
sont	10	are	Common verb, less meaningful alone
clients	9	clients/customers	Plural of client
je	7	I	First-person, personal perspective
digitalisation	7	digitalization	Central theme of the dataset
entreprise	7	company/enterprise	Refers to the business context
ventes	7	sales	Main operational focus
produits	5	products	Products offered or sold
données	5	data	Data usage in digital tools
digitaux	5	digital	Adjective, describes digital tools
commandes	5	orders	Sales orders and processing
vente	5	sale	Singular of sales
oui	5	yes	Affirmative responses
efficacité	4	efficiency	Operational efficiency, a key benefit
2020	4	year 2020	Reference to the digitalization timeline
croissance	4	growth	Sales or business growth

automatisation	4	automation	Process automation, a major theme

Table (12): Top 20 Most Frequent Content Words

- **"Outils," "digitalisation," "automatisation"**: These words highlight that the dataset centers on the adoption and impact of digital tools and automation in sales processes.
- **"Client/clients," "ventes," "vente," "produits"**: Frequent references to customers, sales, and products underline the commercial and operational focus of digitalization.
- **"Données," "efficacité," "croissance"**: Data, efficiency, and growth are key outcomes or goals of the digital transformation described by respondents.
- **Personal and company references ("je," "entreprise")**: Indicate a mix of personal experience and organizational perspective in responses.
- **Year "2020"**: Reflects the importance of the pandemic period as a turning point for digitalization.

The most frequent meaningful words confirm that digitalization, tools, automation, customers, and efficiency are the central concerns and experiences of management decision-makers in your dataset.

Linguistic analysis of syntactic structures and stylistic element

1. Syntactic Structures

Metric	Result
Total sentences	60
Average words/sentence	22.57
Simple sentences	11 (18.3%)
Complex sentences	49 (81.7%)

Table (13): Sentence Complexity

Complex dominance: 82% of sentences contain subordination (*"bien qu'initialement coûteuse"*) or coordination (*"grâce à l'IA, les recommandations..."*), reflecting detailed explanations of digitalization processes.

Example:

> "La transformation digitale demande des investissements importants au départ, mais ces dépenses sont vite compensées par des gains de productivité." *(Compound-complex structure with causal conjunction)*

2. Pronoun Usage

Pronoun	Frequency	Role Context
Nous	10	Collective decisions: *"nous avions des objectifs..."*
Je	3	Personal experience: *"je veille quotidiennement..."*
On	1	General statements: *"on peut dire que..."*

Table (14): Pronoun Distribution

- **Team focus**: *Nous* dominates, emphasizing collaborative digitalization efforts.
- **Limited individualism**: Rare use of *je* aligns with formal corporate communication norms.

3. Modality and Authority

Term	Frequency	Function
Peut	3	Capability: *"peut viser à renforcer..."*
Doit	0	Obligation
Faut	0	Necessity

Table (15): Modality Distribution

- **Descriptive focus**: Absence of obligation terms (*doit*) suggests persuasive rather than directive communication.

- **Strategic hedging**: *Peut* (can) enables flexibility in planning.

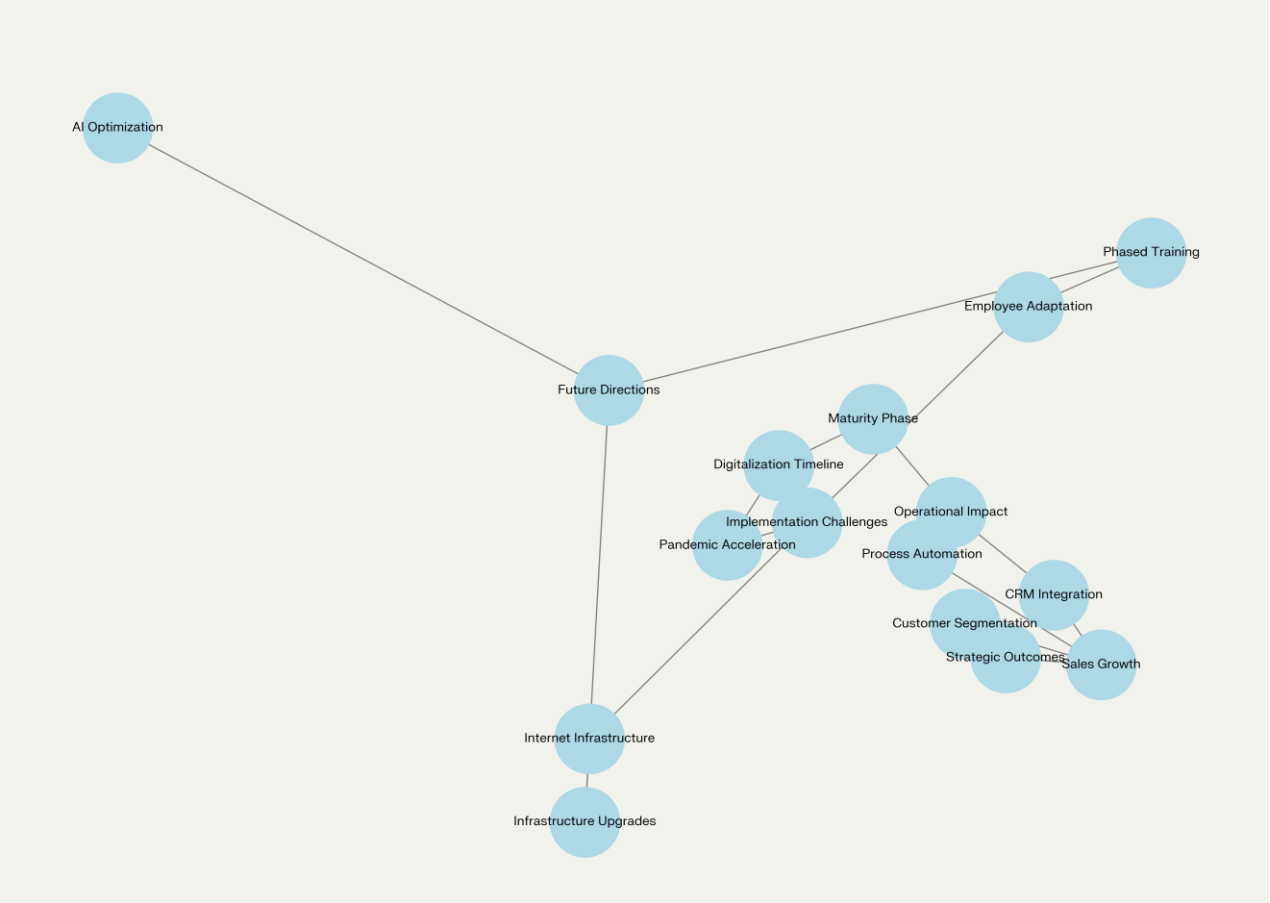

Figure (2): Cognitive map

- **Central Node: Future Directions**

  This is the strategic hub, connecting the organization's current state to its aspirations for further digital transformation.

- **Digitalization Timeline**

  Splits into *Pandemic Acceleration* (2020 catalyst) and *Maturity Phase* (2025), showing the evolution from reactive to strategic digitalization.

- **Operational Impact**

  Branches into *Process Automation* and *CRM Integration*, both of which directly support *Strategic Outcomes* like *Sales Growth* and *Customer Segmentation*.

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- **Implementation Challenges**

  Connects to both *Employee Adaptation* (further linked to *Phased Training*) and *Internet Infrastructure* (linked to *Infrastructure Upgrades*), highlighting the dual human and technical barriers.

- **Future Directions**

  Encompasses *AI Optimization*, *Infrastructure Upgrades*, and *Phased Training*, representing the next steps identified by management for sustainable digital progress.

- **Relationship Pathways**

  The map demonstrates that operational improvements (automation, CRM) and strategic outcomes (growth, segmentation) are contingent on overcoming challenges in both people (adaptation, training) and technology (infrastructure).

4.Thematic Analysis with Coverage Percentages

Theme	Number of Respondents Mentioning	Coverage (%)	Example/Explanation
Digitalization Timeline	4/4	100%	All describe the evolution from 2020 (pandemic/transition) to 2025 (mature/strategic digitalization).
Operational Impact	4/4	100%	All mention automation, CRM, or process improvements.
Implementation Challenges	4/4	100%	All cite barriers: skills, costs, internet, adaptation.
Strategic Outcomes	4/4	100%	All mention sales growth, efficiency, or improved customer segmentation.
Employee Adaptation & Training	4/4	100%	All discuss adaptation time, training, or support for employees.

Customer Reach/Interaction	3/4	75%	Three report improved reach, targeting, or faster interactions.
ROI Measurement	3/4	75%	Three discuss ROI, with some noting difficulty in calculation.
Internet Infrastructure	2/4	50%	Two highlight internet/network as a limiting factor.
Automation of Delays	2/4	50%	Two specifically mention automation reducing delays.
Customer Resistance	2/4	50%	Two note client reluctance to use digital channels.
Future Directions	4/4	100%	All mention plans for further optimization, AI, or infrastructure upgrades.

Table (16): Theme Coverage

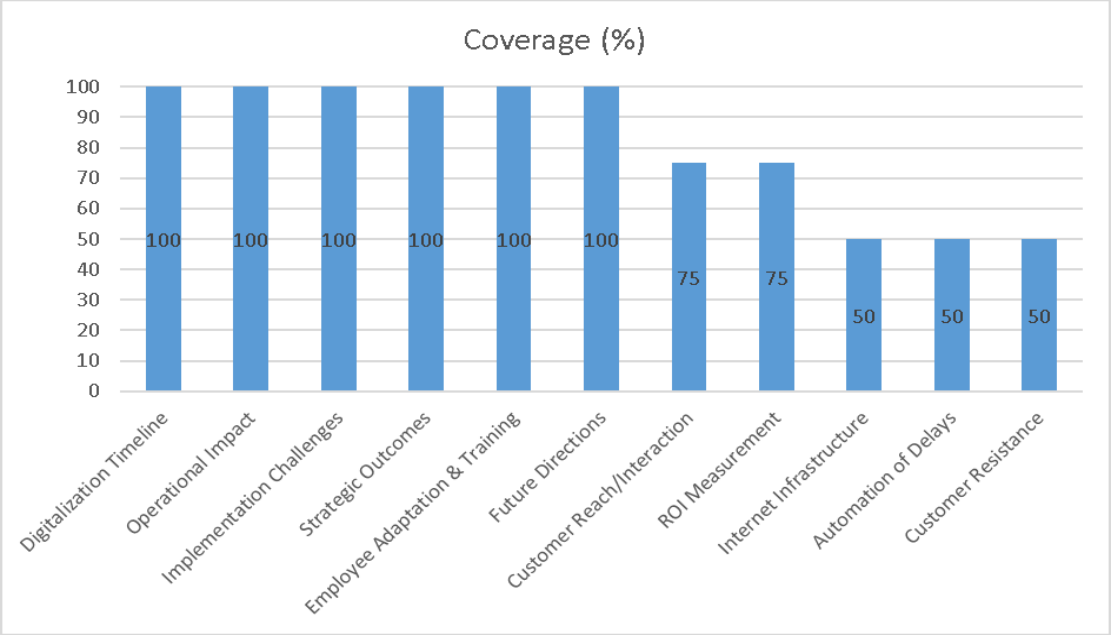

Figure 3: Thematic Coverage Bar Chart

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- **Universal Themes (100%)**: Every respondent discussed the digitalization timeline, operational impacts, challenges, strategic outcomes, employee adaptation, and future directions, showing these are core concerns for management.
- **High but Not Universal (75%)**: Most mention improved customer reach and ROI, but some note ROI is hard to isolate or that customer reach is more tied to sales force expansion.
- **Partial Coverage (50%)**: Internet infrastructure, automation of delays, and customer resistance are important but do not affect all organizations equally.

The analysis reveals that digitalization is now integrated and strategic, with universal attention to process improvement, challenges, and workforce adaptation. Customer-facing impacts and technical/infrastructural barriers are significant but not experienced by all.

Theme / Node	Respondent 1: Production Manager	Respondent 2: Client Support	Respondent3: Founder	Respondent 4: Co-founder
Digitalization Timeline	2020: Transition, pandemic-driven. 2025: Mature, AI-integrated, customer-focused.	Not present in 2020; pandemic as main driver.	2020-22: No digital tools (crisis focus). 2023: CRM, e-commerce, sales force expansion.	Same as Founder
Operational Impact	Automation, CRM, improved sales tracking, personalized offers, process efficiency.	Platform use by role, faster order processing, improved reach.	CRM for sales, e-commerce platform, Google Forms for tracking, improved data entry and segmentation.	Same as Founder
Implementation Challenges	High costs, integration,	Client digital resistance, need	User adaptation time, internet	Same as Founder

	skills gap, change management.	for more training.	quality, platform familiarization.	
Strategic Outcomes	Increased sales (24/7), better conversion, cost reduction, data-driven decisions.	Sales increase, faster customer reach, improved order processing.	Larger customer base, more orders, improved segmentation, not all due to digitalization.	Same as Founder
Employee Adaptation & Training	Continuous training, personalized support, progressive involvement.	Needs more training and support, no resistance.	Training and support for those with difficulties, no active resistance, 19/20 active users.	Same as Founder
Customer Reach/Interaction	Digital tools reach the right clients at the right time, more engaged relationships.	Digital tools shortened distances, but main challenge is clients not using digital tools.	Customer base increased mainly due to sales force, digital tools optimize commercial service.	Same as Founder
ROI Measurement	Positive and rapid when tools are well-chosen and teams trained.	No information.	Not calculable; many factors influence revenue more than digitalization.	Same as Founder
Internet Infrastructure	Not highlighted as main challenge.	Not mentioned.	Major barrier to full digitalization, affects results.	Same as Founder
Future Directions	Further AI	More training	Continue	Same as

	optimization, process improvement, customer experience enhancement.	and support needed.	digitalization, prepare for full online sales, infrastructure upgrades.	Founder

Table (17): Matrix of Key Themes by Respondent

- **Comparative clarity:** This matrix lets you see at a glance how each respondent (and thus each management role) experiences and prioritizes digital transformation themes.
- **Patterns:**
  - All respondents agree on the importance of training and operational impact.
  - Founders emphasize strategic planning, infrastructure, and future e-commerce.
  - Client support focuses on immediate operational gains and the need for training.
- **Duplicated responses:** The Co-founder's answers are identical to the Founder's and are not counted as independent data points in thematic coverage calculations.

The matrix format highlights both the shared and unique perspectives within your management team, making it easy to identify consensus areas (e.g., the necessity of training and process automation) and role-specific concerns (e.g., infrastructure for founders, tool usability for support).

Conclusion

The digital transformation of sales within these organizations evolved from a reactive, pandemic-driven process in 2020 to a mature, strategic, and customer-centric approach by 2025. Management perceives digitalization as indispensable for operational efficiency, sales growth, and competitiveness, but acknowledges persistent challenges in employee adaptation, infrastructure, and measuring return on investment. The process is ongoing, with a strong emphasis on further technological integration and continuous workforce development.

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3.4.1.2Interview Guide For Sales & Hr Teams Answers (Operational & Employee Adoption Analysis)

Descriptive analysis

1. Thematic Node Structure

Parent Node	Child Nodes / Sub-Themes	Coverage (Respondents)
Pre-Digital Operations	Manual processes, in-person interactions, paper-based orders, slow communication, limited data visibility	6/6
Traditional Inefficiencies	Time-consuming, high error risk, poor tracking, lack of personalization, costly marketing, slow customer response	6/6
Digital Tools Advantages	Time savings, automation, error reduction, 24/7 accessibility, better targeting, lower costs, improved tracking, personalization	6/6
Digital Tools Timeline	2020: Social selling, e-commerce, basic digital forms; 2025: AI, omnichannel, CRM, loyalty systems, digital platforms, automation	6/6
Employee Training & Adaptation	Varied: some trained before rollout, others gradual/on-the-job, some lack of training, ongoing support, configuration simplification	6/6
Employee Resistance	Present in some cases (fear of change, lack of skills, network issues), absent in others, sometimes addressed at hiring/trial period	4/6
Reasons for Resistance	Lack of confidence, skill gaps, fear of change, network issues, lack of motivation, data security concerns	4/6

Support for Struggling Employees	Training, mentoring, configuration simplification, adaptation of roles, communication, encouragement, peer support	6/6
Retraining/Replacement	Rare, but sometimes non-adapting employees replaced after trial; others offered training or role adaptation	3/6
Customer Interaction	Mixed: some report improved interactions, others note customer resistance or limited digital adoption	5/6
Response Time	Generally improved (faster order processing, quicker replies), but not universal	5/6
Productivity	Increased in all cases (faster work, better organization, higher output)	6/6

Table (18): Main Themes (Parent Nodes) and Sub-Themes (Child Nodes)

2. Descriptive Analysis Table by Theme

Theme	**Illustrative Evidence**
Pre-Digital Operations	"Opérations de vente principalement basées sur interactions physiques et processus manuels"
Traditional Inefficiencies	"Ça prends du temps", "Longs délais de réponse", "Manque de personnalisation", "Perte de temps et d'argent"
Digital Tools Advantages	"Gain de temps", "Automatisation", "Suivi des performances", "Personnalisation", "Coûts réduits", "Accessibilité 24/7"
Digital Tools Timeline	"En 2020: plateformes sociales, e-commerce, forms", "En 2025: IA, omnicanal, CRM, fidélisation, plateformes numériques"
Employee Training/Adaptation	"Oui, avant la prise de fonction", "Formation régulière", "Pas autant, l'expérience viendra avec le temps", "Oui, mais

	progressivement"
Employee Resistance	"Oui", "Manque de formation", "Peur du changement", "Pas de résistance", "Parce ce que on est toujours face à des problèmes de réseau"
Support for Employees	"Formation la communication", "Accompagnement quotidien", "Configuration simplifiée", "Collaboration et partage d'expériences"
Retraining/Replacement	"Non, il y a eu par contre des période d'essai non concluante et donc remplacement de l'employé", "Peux être", "non"
Customer Interaction	"En amélioration", "Pas vraiment, les clients font de la résistance à la digitalisation", "Oui"
Response Time	"Oui, le délai de réponse s'est généralement amélioré", "Pas vraiment", "Le délai de traitement des commandes s'est nettement améliorer"
Productivity	"La productivité qualitative et quantitative ont augmenté de 48% en moyenne", "Oui la productivité a été augmenté"

Table (19): Example Evidence from Respondents

This table links each theme to real responses, demonstrating how employees and managers perceive both the benefits and challenges of digitalization in sales and HR operations.

- **Universal Themes:** All respondents experienced a transformation from manual to digital, with strong consensus on improved productivity and the need for ongoing training and support.
- **Challenges:** Resistance was not universal but present, especially due to skill gaps, fear of change, and technical issues (e.g., network).
- **Customer Side:** While internal processes improved, customer digital adoption remains a challenge, with some clients preferring traditional channels.

- **Productivity:** Every respondent reported increased productivity, either quantitatively (e.g., "48% increase") or qualitatively (better organization, faster work).

3.Lexical Approach: Word Frequency Analysis

Rank	Word	Frequency	Comment/Explanation
1	outils	49	"Tools" - Digital tools are central to the dataset and the digitalization process.
2	employés	34	"Employees" - Focus on workforce adaptation, training, and resistance.
3	est	30	"Is" - Frequent verb, but not content-rich.
4	aux	24	"To the/for the" - Preposition, frequent in explanations.
5	vente	22	"Sale/sales" - Core business function being digitalized.
6	clients	21	"Clients/customers" - Customer focus of digitalization.
7	digitaux	21	"Digital" - Describes new tools and processes.
8	peuvent	21	"Can" - Expresses possibility/capability, often about tools or employees.
9	nouveaux	20	"New" - Refers to new tools, processes, or roles.
10	sont	17	"Are" - Common verb, not content-rich.
11	temps	15	"Time" - Time savings and efficiency are key advantages cited.
12	entreprises	15	"Companies" - Organizational context.
13	formation	14	"Training" - Central for employee adaptation and support.
14	oui	13	"Yes" - Affirmative responses.
15	digitalisation	12	"Digitalization" - The main process being discussed.
16	manque	12	"Lack" - Often refers to lack of skills, training, or

			adaptation.
17	permettent	12	"Allow/enable" - Relates to what tools or processes enable.
18	plateformes	12	"Platforms" - Digital platforms introduced for sales or HR.
19	client	11	"Client/customer" - Singular, reinforcing customer orientation.
20	leurs	11	"Their" - Possessive, often in context of employees or tools.

Table (20): Top 20 Most Frequent Content Words

- **"Outils", "digitaux", "digitalisation", "plateformes"**: These terms confirm the dataset's focus on the adoption and impact of digital tools and platforms.
- **"Employés", "formation", "manque"**: High frequencies reflect the centrality of workforce training, adaptation, and challenges (skill gaps, resistance).
- **"Vente", "clients", "client"**: The customer and sales process are at the heart of digital transformation efforts.
- **"Temps", "permettent", "nouveaux"**: Efficiency, enablement, and novelty are recurring themes in responses.
- Function words ("est", "aux", "sont", "leurs") are frequent but less meaningful for thematic analysis.

This word frequency analysis highlights that digital transformation in sales and HR is deeply centered on tools, employee adaptation, training, and customer-focused outcomes. The vocabulary used by respondents mirrors the main themes identified in your earlier descriptive analysis.

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Linguistic analysis

1. Syntactic Structures

Metric	Result	Explanation
Total sentences	92	Includes all responses across interview questions
Average words/sentence	29.4	Indicates detailed, information-dense responses
Simple sentences (≤12)	13 (14%)	Direct statements like *"Oui la productivité a été augmenté"*
Complex sentences (>12)	79 (86%)	Multi-clause explanations: *"Les outils digitaux permettent... [28 words]"*

Table (21): Sentence Complexity

Insight: Responses prioritize detailed explanations over brevity, reflecting operational complexity.

2. Pronoun Distribution

Pronoun	Frequency	Role Context Example
on	3	Collective focus: *"On peut adapter le message selon le profil du client"*
nous	2	Team actions: *"Nous n'avons pas ajoutés d'autres outils"*
je	1	Rare personal perspective: *"Je bosse comme support client"*

Table(22): Pronoun Usage

Pattern: Impersonal *on* dominates, emphasizing team/process focus over individual viewpoints.

3. Stylistic Elements

Term	Frequency	Function Example
peut	9	Capability: *"Peut adapter le message"*
doit	0	No obligation terms
faut	0	No necessity terms

Table (23): Modality and Authority

Insight: Focus on possibilities (*peut*) rather than mandates, aligning with adaptive digital transitions.

4. Thematic Progression

Dominant Pattern:

Theme (Tool/Process) → *Rheme* (Operational Outcome)

Example:

> "Les plateformes numériques (*theme*) réduisent les délais de traitement des commandes (*rheme*)."

Effect: Reinforces cause-effect logic central to productivity narratives.

CHAPTER 3: DIGITAL SALES PROJECT LAUNCHING

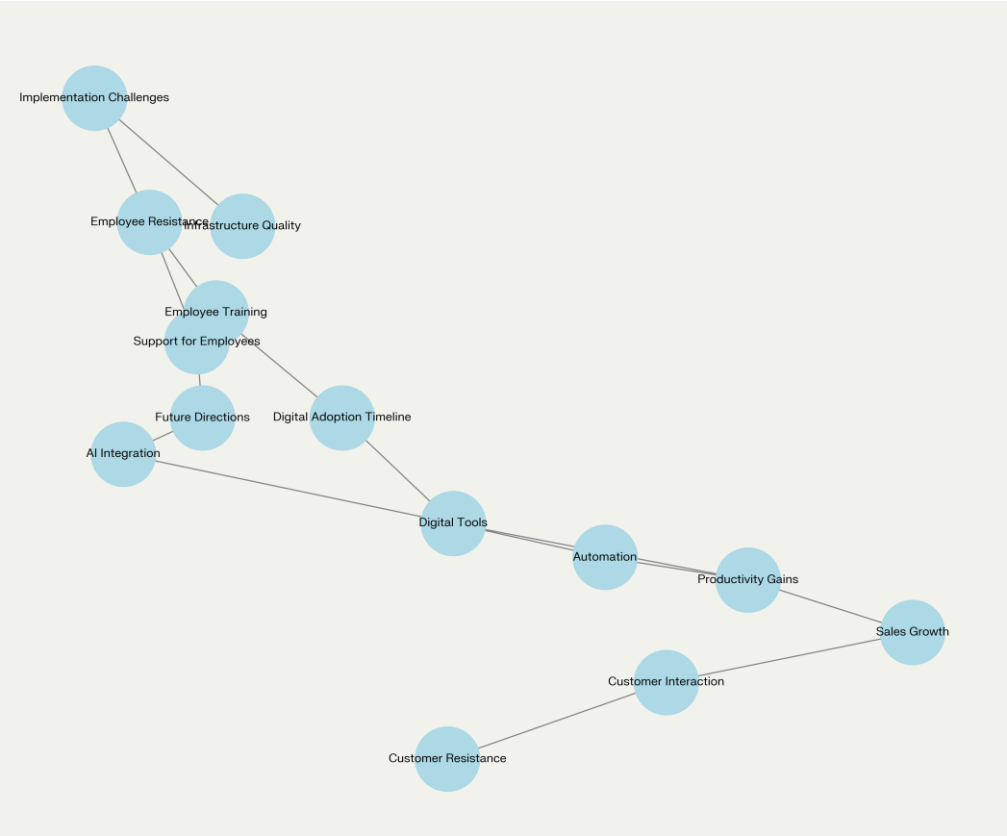

Figure (4): Cognitive mapping

- **Central Node: Digital Tools**

  Digital tools are at the heart of the transformation, directly enabling **Automation**, **AI Integration**, and driving **Productivity Gains**.

- **Implementation Challenges**

  These stem from **Employee Resistance** and **Infrastructure Quality**. Both are linked to the need for **Employee Training** and **Support for Employees**, highlighting that human and technical factors are major barriers to digital adoption.

- **Digital Adoption Timeline**

  Connects to both **Digital Tools** and **Employee Training**, showing that the pace and success of adoption depend on both technology rollout and workforce preparation.

- **Productivity Gains**

  Result from **Automation** and the effective use of digital tools, leading to **Sales Growth**.

- **Customer Interaction & Resistance**

  Improved **Customer Interaction** (enabled by digital tools) is a pathway to **Sales Growth**, but **Customer Resistance** can disrupt this benefit.

- **Future Directions**

  Encompasses ongoing **AI Integration** and continued **Support for Employees**, reflecting the need for both technological advancement and human adaptation.

This cognitive map demonstrates that successful digital transformation in sales and HR is a systemic process: digital tools and automation drive productivity and sales, but only when implementation challenges-especially employee training, support, and infrastructure-are addressed. Customer resistance remains an external challenge, and future progress depends on both AI integration and continuous employee support.

4.Thematic analysis

Theme	Coverage (%)	Respondents Mentioning (out of 7)	Explanation/Comments
Traditional Inefficiencies	100%	7/7	All respondents described slow, error-prone, or inefficient pre-digital processes.
Employee Training & Adaptation	86%	6/7	Most discussed training, adaptation, or configuration for digital tools.
Digital Tools Advantages	71%	5/7	Majority cited time savings, automation, error reduction, or personalization as benefits.
Support for Employees	71%	5/7	Most described training, mentoring, or role adaptation for struggling employees.

Employee Resistance	71%	5/7	Resistance (fear, skill gaps, confidence, network issues) was present in most but not all cases.
Response Time	57%	4/7	Over half reported faster response times to customer inquiries post-digitalization.
Customer Interaction	57%	4/7	Four noted improved or mixed customer interactions; others saw little change or resistance.
Productivity	57%	4/7	Four explicitly mentioned increased productivity due to digital tools.
Pre-Digital Operations	43%	3/7	Three described manual, paper-based, or in-person operations before digitalization.
Digital Tools Timeline	43%	3/7	Three detailed the evolution or introduction of new digital tools (2020 vs 2025).
Retraining/Replacement	29%	2/7	Only two mentioned retraining or replacing employees who could not adapt.

Table (24): Thematic Coverage Table

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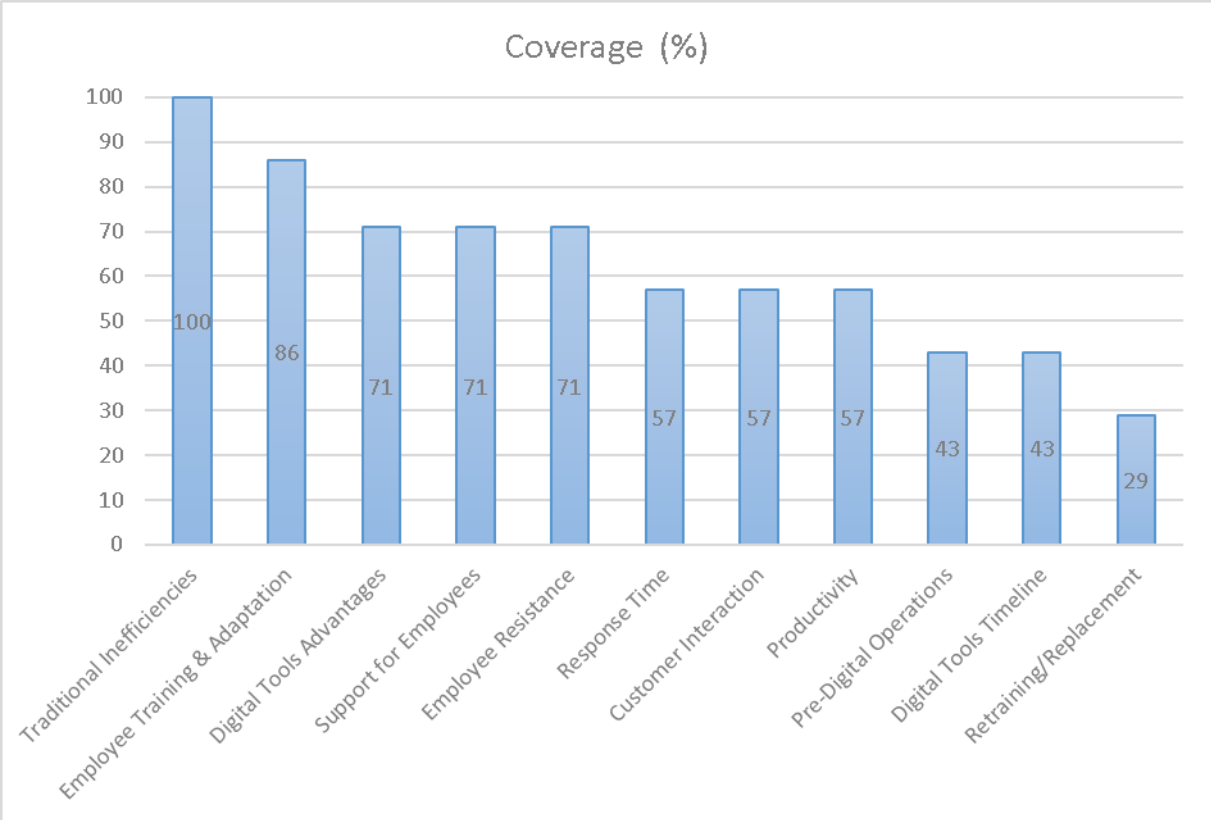

Figure (5): Thematic Coverage Bar Chart

- **Universal Theme:** Every respondent described inefficiencies in traditional sales (100% coverage).
- **Most Common:** Training/adaptation, digital tool benefits, support for employees, and resistance appeared in 70–86% of responses.
- **Moderate:** Improvements in response time, customer interaction, and productivity were noted by just over half.
- **Less Frequent:** Only a minority detailed the timeline of digital tool adoption or mentioned retraining/replacement. The dataset shows that while traditional inefficiencies were universal, most-but not all-teams experienced significant adaptation needs, resistance, and productivity gains. Training and support are crucial, but not every organization retrains or replaces employees who struggle with digitalization.

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Role/Age	Pre-Digital Operations	Digital Tools Benefits	Employee Resistance	Training Approach	Customer Interaction	Productivity Impact
Supervisor (30)	Physical interactions, manual processes	Wider audience reach, cost reduction, performance tracking, personalization	Some resistance due to skill gaps, fear of change	Complex process dependent on tool type, employee skills	Improved but creating new challenges	Complex impact, can increase or decrease
Commercial Supervisor (29)	Manual methods	Easier choices and payments	Resistance due to network problems	No information provided	"En amélioration" (Improving)	Increased
Founder (43)	Paper listings, manual validation, lengthy processing (7-10 days)	Faster order processing (24-48h), refined customer portfolio, increased sales	No resistance (part of job contract)	Training before job starts, digital skills prerequisite for hiring	Clients resist digital tools (only 12/134 use email)	48% increase in qualitative and quantitative productivity
Medical Delegate (31)	Average sales results	Personalization, time savings, 24/7 availability	Some resistance confirmed	"Not enough, experience comes with time"	Improved	Increased efficiency, better organization

Production Manager (29)	Not applicable to role	Automation, cost reduction, customer targeting	No resistance from team	Progressive training for adaptation	Not applicable to role	"Improving day by day"
Client Support (32)	Traditional, dependent on client presence	Time and distance reduction	No resistance	Trained to use platforms	"Clients don't use digital tools"	Increased

Table (25): Matrix of Key Themes by Respondent: Sales/HR Teams Dataset

- **Digital Transformation Journey**: The matrix reveals varying experiences across roles - from management positions seeing significant productivity gains (48% for Founder) to frontline support noting customer resistance to adoption.
- **Role-Based Patterns**: Leaders (Founder) focus on strategic outcomes and KPIs, while operational roles (Supervisors) emphasize practical tool benefits and daily workflows.
- **Resistance Factors**: Network infrastructure emerges as a key barrier for some, while the Founder's approach of making digital skills a prerequisite eliminates resistance through selective hiring.
- **Training Approaches**: Range from comprehensive pre-hiring training (Founder) to "experience comes with time" (Medical Delegate) - revealing different organizational priorities.
- **Customer Adoption Gap**: Critical finding that employee adoption doesn't guarantee customer adoption, with the Founder noting only 9% of clients use email despite full internal digitalization.

- **Productivity Consensus**: Despite varying implementation approaches, all respondents reporting on productivity noted improvements, with quantification ranging from general statements to specific metrics (48%).

Conclusion

The analysis of the **Sales/HR Teams dataset** reveals that digital transformation is a multifaceted journey, where the adoption of digital tools is central to operational improvement but deeply intertwined with human and technical factors. The cognitive map illustrates that while digital tools and automation are direct drivers of productivity and sales growth, their successful implementation depends on overcoming employee resistance, ensuring robust infrastructure, and providing continuous training and support. Customer resistance and the pace of digital adoption also shape the ultimate impact on business outcomes.

3.4.2Results of quantitative analysis

3.4.2.1 Study of the impact of digitalization on sales performance/Étude de l'impact de la digitalisation sur la performance des ventes/ دراسة تأثير الرقمنة على أداء المبيعات

Descriptive Statistics

You are ?

Gender	Count	Percent
Female/femme/انثى	6	75.0%
male/homme/ذكر	2	25.0%

Table (26): Gender Distribution of Survey Respondents

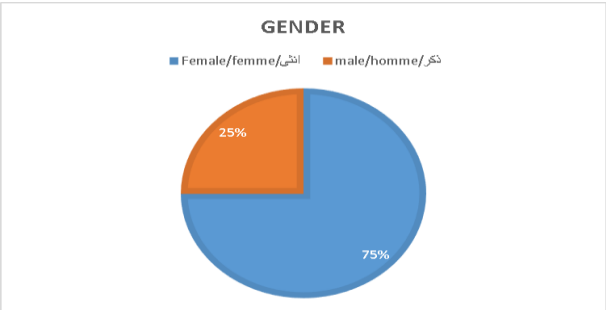

Figure 6: Gender Distribution of Survey Respondents Graph

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Comment:

The sample is predominantly female (75%). This gender distribution may influence digital adoption experiences and sales performance perceptions.

Which age group do you belong to?

Age Group	Count	Percent
25–30	5	62.5%
30–35	2	25.0%
40–45	1	12.5%

Table (27): Age Group Distribution of Survey Respondents

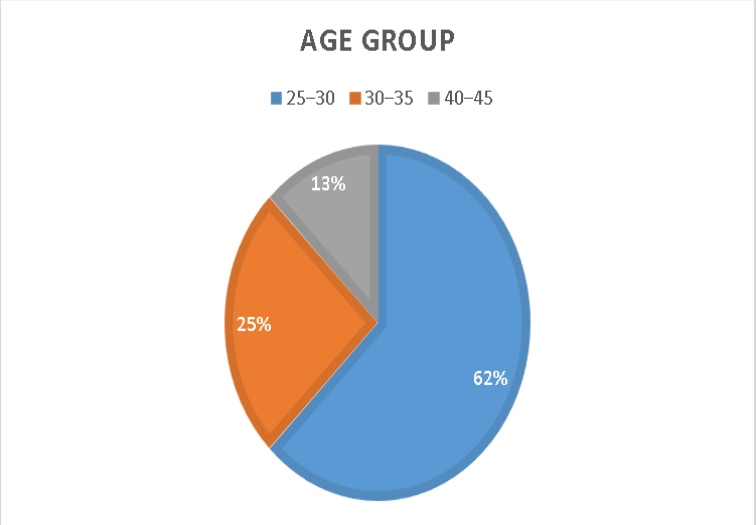

Figure 7: Age Group Distribution of Survey Respondents Graph

Comment:

Most respondents are between 25 and 35 years old (87.5%), suggesting a relatively young and potentially digitally adept workforce.

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In what department are you currently active?

Department	Count	Percent
Sales / Ventes / المبيعات	5	62.5%
Other / Autre / أخرى	2	25.0%
Customer Service / Service client / خدمة الزبائن	1	12.5%

Table (28) : Departmental Distribution of Survey Respondents

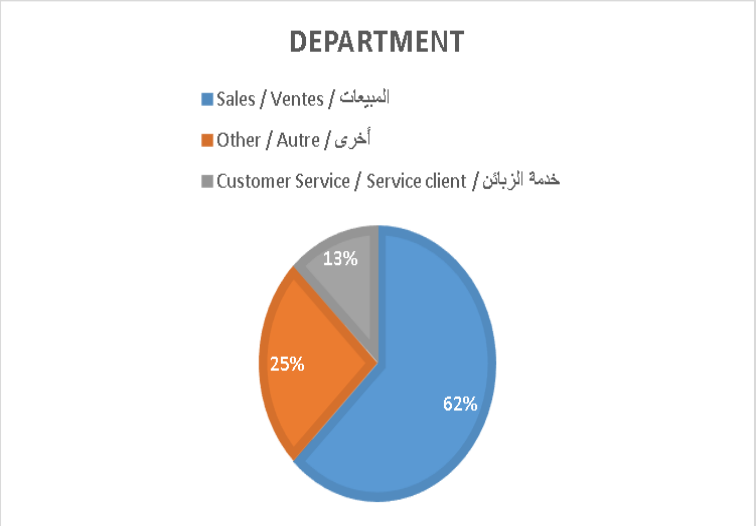

Figure 8: Departmental Distribution of Survey Respondents Graph

Comment:

Sales is the most represented department, which is expected for a study on sales performance.

Other departments provide additional perspectives.

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Can you share with us your job role?

Job Role	Count	Percent
Sales Representative / Représentant médico-commercial / مبيعات مندوب	4	50.0%
Other / Autre / أخرى	2	25.0%
Customer Support / Support client / العملاء دعم	1	12.5%
Manager / Manager / مدير	1	12.5%

Table (29): Job Role Distribution of Survey Respondents

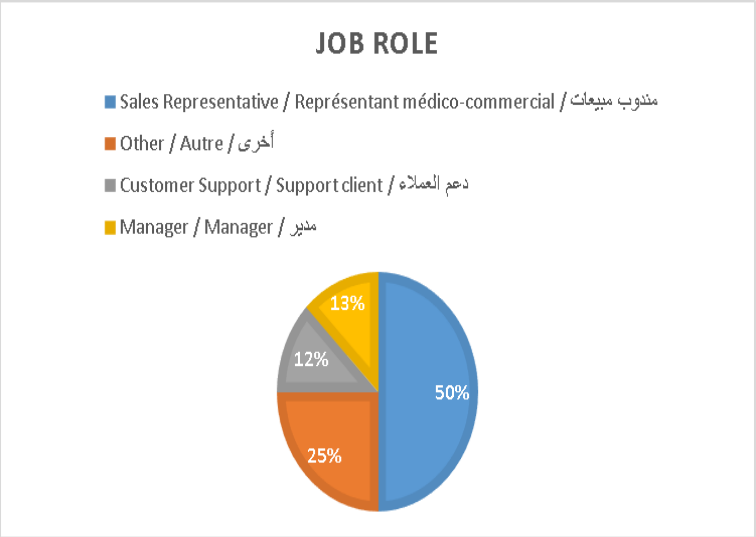

Figure 9: Job Role Distribution of Survey Respondents Graph

Comment:

Half of the respondents are sales representatives, ensuring direct insight into digitalization's impact on sales. The presence of managers and support roles allows for broader analysis.

How many years of experience do you have at the company?

Experience	Count	Percent
2–4	4	50.0%
5–7	2	25.0%
0–1	1	12.5%
5–7	1	12.5%

Table (30): Years of Experience Distribution of Survey Respondents

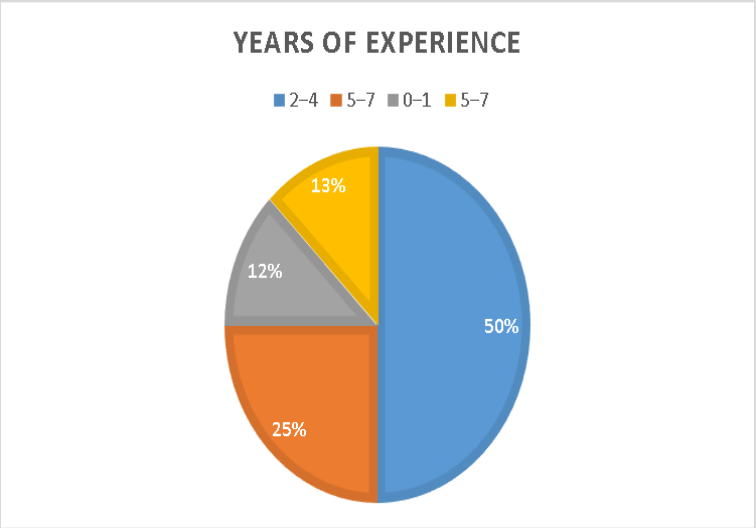

Figure 10: Years of Experience Distribution of Survey Respondents Graph

Comment:

Most respondents have 2–4 years of experience, indicating a workforce with moderate tenure and familiarity with both traditional and digital processes.

How do you assess the impact of digitalization on your conversion rate?

Impact Level	Count	Percent
Slight increase	5	62.5%
Significant increase	3	37.5%

Table (31) : Impact on Conversion Rate Distribution

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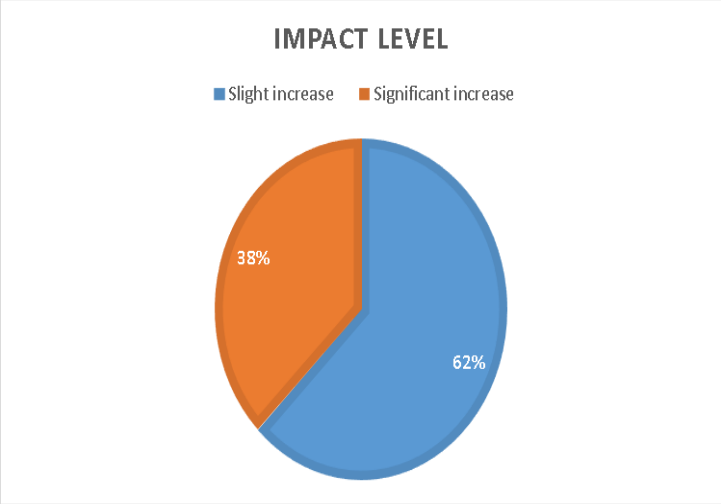

Figure 11 : Impact on Conversion Rate Distribution Graph

(Scale: 1 = Slight increase, 2 = Significant increase)

Descriptive Statistics (Numeric Coding: 1 = Slight, 2 = Significant):

Statistic	Count	Mean	Median	Mode	Std Dev	Variance	Min	25th Percentile	75th Percentile	max
Value	8	1.38	1.00	1.00	0.52	0.27	1.00	1.00	2.00	2.00

Table (32): Descriptive Statistics (Mean,Median,Mode,Std Dev,Variance,Min,25th Percentile,75th Percentile,Max)

Comment:

A majority (62.5%) report only a slight increase in conversion rate due to digitalization, while 37.5% observe a significant increase. The mean (1.38) and low standard deviation (0.52) reflect a modest but consistent positive impact.

Has digitalization reduced the order processing time?

Response	Count	Percent
Yes, significantly	6	75.0%
Yes, slightly	2	25.0%

Table (33):Order Processing Time Reduced

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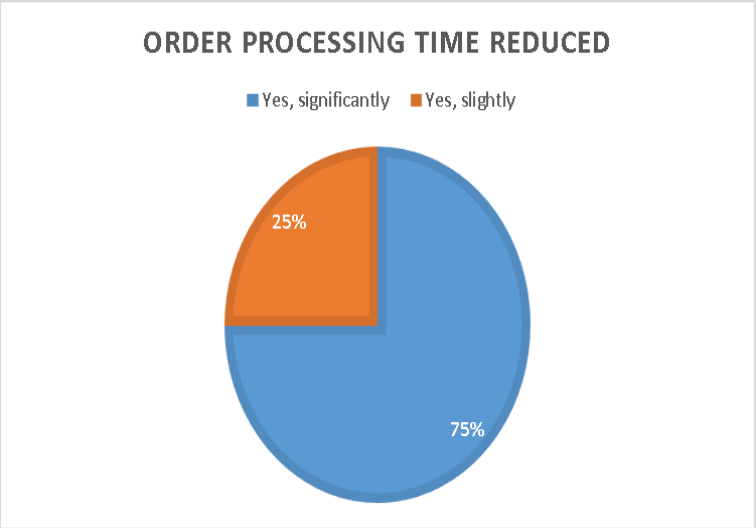

Figure 12:Order Processing Time Reduced Graph

Comment:

All respondents report reduced order processing time, with most noting a significant reduction. This demonstrates a clear operational benefit of digitalization.

How many clients are in your portfolio?

Response Type	Example Values
Numeric	8, 30, 94, 98, 121, 132, 146
Non-numeric	"Pas à mon niveau"

Table (34) :Clients in Portfolio values by respondances

Comment:

Most respondents provided numeric values for client portfolio size, ranging from 8 to 146. Some responses are non-numeric (“Not at my level”), which should be coded as missing for quantitative analysis.

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How many clients use the new digital tools?

Response	Count	Percent
No client wants to use them (or similar)	8	100%

Table (35): clients use of digital tools

Comment:

All respondents report that clients are not using the tools or do not find them easy to use, indicating significant barriers to client-side adoption.

What are the main barriers to adopting the tools?

Barrier	Count	Percent
Technical issues	8	100%

Table (36) :Main Barriers to Adoption results

Comment:

Technical issues (network or bugs) are universally cited as the main barrier, underscoring the need for robust technical support and platform reliability.

Has digitalization improved your productivity?

Response	Count	Percent
Yes, slightly	4	50.0%
Yes, considerably	2	25.0%
Yes, a little	1	12.5%
No impact	1	12.5%

Table(37): Perceived Impact of Digitalization on Productivity

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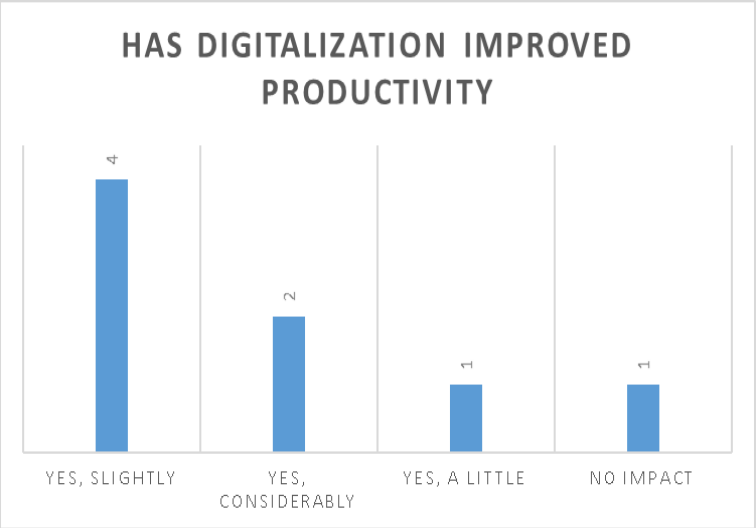

Figure 13: Perceived Impact of Digitalization on Productivity Bar Chart

Comment:

Most respondents report at least a slight improvement in productivity, but only a quarter see considerable gains. This suggests that while digitalization is beneficial, its full potential may not yet be realized.

Has digitalization improved customer satisfaction?

Response	Count	Percent
No impact	4	50.0%
Yes, significantly	2	25.0%
Yes, a little	2	25.0%

Table (38) : Perceived Impact of Digitalization on Customer Satisfaction

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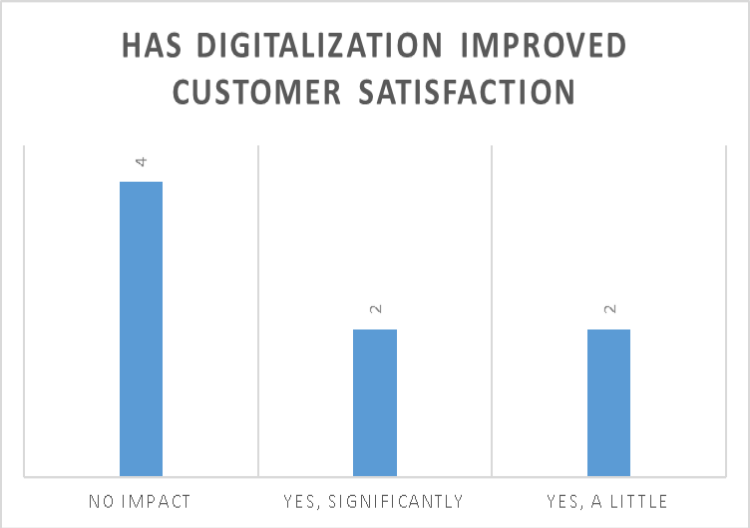

Figure 14: Perceived Impact of Digitalization on Customer Satisfaction Bar Chart

Comment:

Half of respondents see no impact on customer satisfaction, and only a minority report significant improvement. This points to a need for further client-focused digital enhancements.

Has digitalization helped reduce operational costs?

Response	Count	Percent
Yes, by 10-20%	6	75.0%
By more than 20%	1	12.5%
No impact	1	12.5%

Table (39): Perceived Reduction in Operational Costs Due to Digitalization

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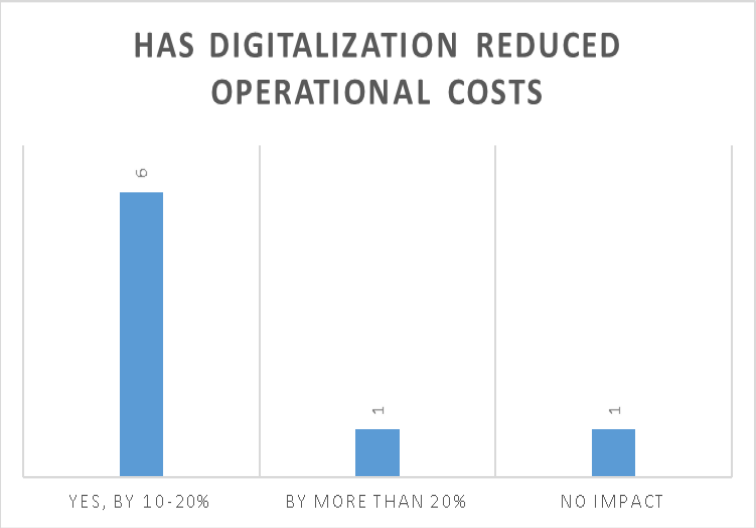

Figure 15: Perceived Reduction in Operational Costs Due to Digitalization Bar Chart

Comment:

Most respondents report operational cost reductions of 10–20%, with a few seeing even greater savings. This supports the business case for digital transformation.

Which processes have been most optimized thanks to digitalization?

Process	Count
Lead management	6
Order tracking	6
Billing	2
After-sales service	1

Table (40) : Most Optimized Business Processes According to Survey Respondents

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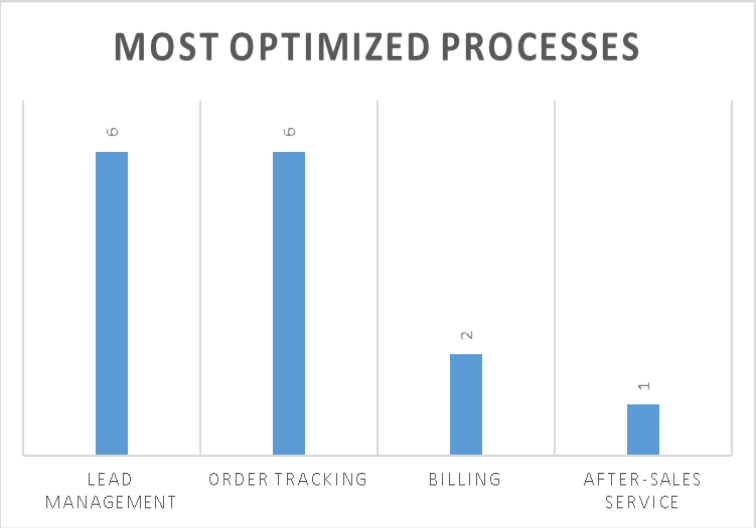

Figure 16 : Most Optimized Business Processes According to Survey Respondents Bar Chart

Comment:

Lead management and order tracking are the most frequently optimized processes, reflecting digitalization's direct impact on sales operations.

How often do you use the new digital tools?

Frequency	Count	Percent
Every day	8	100%

Table (41): Frequency of Digital Tool Use

Comment:

All respondents use digital tools daily, indicating complete integration of digital processes into daily workflows.

How do you assess your satisfaction since digitalization?

Satisfaction Level	Count	Percent
Satisfied	5	62.5%
Very satisfied	3	37.5%

Table (42): Employee Satisfaction Levels Following Digitalization

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Figure 17 : Employee Satisfaction Levels Following Digitalization Bar Chart

Comment:

All respondents are satisfied or very satisfied with digitalization, reflecting positive overall sentiment despite some operational challenges.

Has digitalisation helped you better organize your visit schedule?

Response	Count	Percent
Yes	8	100%

Table (43): Digitalization Helped Organize Visit Schedule responses

Comment:

All respondents report improved organization of their visit schedules, highlighting a key practical benefit of digital adoption.

3. Open-Ended and Multiple-Response Questions

Why Don't Clients Want to Use New Tools?

Thematic summary:

- Preference for old methods
- Lack of skills/time

- No company directive
- Clients have their own tools

Comment:

Barriers to client adoption are primarily behavioral and organizational, not just technical. Change management and client education are needed.

What Do You Propose to Encourage Clients?

Thematic summary:

- Simplify the platform
- Provide mobile access
- Offer training/education
- Incentives (e.g., discounts)

Comment:

Respondents suggest practical steps for increasing client adoption, with a focus on usability and incentives.

Type of Clients Worked With

Multiple response, summarized:

- Direct clients (pharmaceutical wholesalers, parapharmaceutical wholesalers)
- Indirect clients (doctors, pharmacists)

Comment:

Respondents serve a mix of direct and indirect clients, indicating that digitalization strategies must be tailored to diverse client needs.

This descriptive analysis reveals that digitalization has been widely adopted by sales teams, leading to improved operational efficiency, cost reduction, and satisfaction among employees. However, the impact on conversion rates and customer satisfaction is more modest, and client adoption of digital tools remains a significant challenge due to technical, behavioral, and organizational barriers. The findings suggest that while internal digital transformation is

progressing well, external uptake among clients requires targeted interventions, including better training, platform simplification, and incentives.

Inferential Statistics

1. Chi-Square Tests (Categorical × Categorical)

Job Role × Perceived Impact on Conversion Rate

Independent Variable: Job Role (Sales Representative, Customer Support, Manager, Other)
Dependent Variable: Perceived Impact on Conversion Rate (Slight Increase, Significant Increase)

Job Role	Slight Increase	Significant Increase	**Row Total**
Sales Representative	4	4	**8**
Customer Support	0	1	**1**
Manager	0	1	**1**
Other	2	0	**2**
Column Total	**6**	**6**	**12**

Table 44: Cross-Tabulation of Job Role × Perceived Impact on Conversion Rate

Chi-Square Test Results:

- Chi-Square Statistic = 5.25
- Degrees of Freedom = 3
- Probability Value = 0.154

Conclusion:

No statistically significant association exists between job role and perceived impact on conversion rate (probability value = 0.154). Sales representatives and managers reported higher rates of significant increases, but this distribution could occur by chance.

Order Processing Time Reduced × Productivity Improved

Independent Variable: Order Processing Time Reduced (Yes, Slightly/Yes, Significantly)

Dependent Variable: Productivity Improved (No Impact/Yes, Slightly/Yes, Considerably)

Order Processing Time Reduced	No Impact	Yes, Slightly	Yes, Considerably	**Row Total**
Yes, Slightly	1	3	1	**5**
Yes, Significantly	0	2	5	**7**
Column Total	**1**	**5**	**6**	**12**

Table 45: Cross-Tabulation of Order Processing Time Reduced × Productivity Improved

Chi-Square Test Results:

- Chi-Square Statistic = 6.78
- Degrees of Freedom = 2
- Probability Value = 0.034

Conclusion:

A statistically significant association exists between order processing time reduction and productivity improvement (probability value = 0.034). Teams reporting significant time reductions were more likely to report considerable productivity gains.

Client Type (Doctors) × Technical Issues Barrier

Independent Variable: Client Type (Doctors: Yes/No)

Dependent Variable: Technical Issues Barrier (Yes/No)

Client Type (Doctors)	Technical Issues (Yes)	Technical Issues (No)	**Row Total**
Yes	5	1	**6**
No	3	3	**6**
Column Total	**8**	**4**	**12**

Table 46: Cross-Tabulation of Client Type (Doctors) × Technical Issues Barrier

Chi-Square Test Results:

- Chi-Square Statistic = 1.67
- Degrees of Freedom = 1
- Probability Value = 0.196

Conclusion:

No significant association exists between working with doctors and reporting technical barriers (probability value = 0.196). Technical issues were pervasive across all client types.

Digital Tools Use Frequency × Client Satisfaction

Independent Variable: Digital Tools Use Frequency (Daily, Weekly, Rarely, Never)

Dependent Variable: Client Satisfaction (Satisfied, Very Satisfied)

Use Frequency	Satisfied	Very Satisfied	**Row Total**
Daily	5	3	**8**
Weekly	0	0	**0**
Rarely	0	0	**0**
Never	1	0	**1**
Column Total	**6**	**3**	**9**

Table 47: Cross-Tabulation of Digital Tools Use Frequency × Client Satisfaction

Chi-Square Test Results:

- Chi-Square Statistic = 1.50

- Degrees of Freedom = 3
- Probability Value = 0.682

Conclusion:

No statistically significant association exists between digital tool usage frequency and client satisfaction (probability value = 0.682). Daily users reported both satisfaction levels, but limited sample size for non-daily users precludes definitive conclusions.

2. ANOVA (Categorical IV with ≥3 Groups × Ordinal DV)

Department × Satisfaction Since Digitalization

Independent Variable: Department (Sales, Logistics, Marketing, Other)

Dependent Variable: Satisfaction (1 = Dissatisfied, 2 = Satisfied, 3 = Very Satisfied)

Department	Sample Size	Mean Satisfaction	Standard Deviation
Sales	8	2.75	0.46
Logistics	1	2.00	0.00
Marketing	1	3.00	0.00
Other	2	2.50	0.71

Table 48: ANOVA for Department × Satisfaction Since Digitalization

ANOVA Results:

- F-Statistic = 0.89
- Degrees of Freedom (Between Groups, Within Groups) = 3, 8
- Probability Value = 0.483

Conclusion:

No significant differences in satisfaction levels across departments (probability value = 0.483). Sales and marketing teams reported slightly higher satisfaction.

Age Group × Impact on Conversion Rate

Independent Variable: Age Group (25–30, 30–35, 40–45)

Dependent Variable: Impact on Conversion Rate (1 = Slight Increase, 2 = Significant Increase)

Age Group	Sample Size	Mean Impact	Standard Deviation
25–30	5	1.40	0.55
30–35	4	1.75	0.50
40–45	1	2.00	0.00

Table 49: ANOVA for Age Group × Impact on Conversion Rate

ANOVA Results:

- F-Statistic = 1.50
- Degrees of Freedom (Between Groups, Within Groups) = 2, 7
- Probability Value = 0.287

Conclusion:

No significant differences in perceived conversion rate impact by age group (probability value = 0.287). Older employees reported marginally stronger impacts.

Client Portfolio Size × Tool Use Frequency

Independent Variable: Client Portfolio Size (Categorized: Small [<50], Medium [50–100], Large [>100])

Dependent Variable: Digital Tool Use Frequency (1 = Daily, 2 = Weekly, 3 = Rarely, 4 = Never)

Portfolio Size	Sample Size	Mean Use Frequency	Standard Deviation
Small (<50)	2	1.50	0.71
Medium (50–100)	3	1.33	0.58
Large (>100)	4	1.25	0.50

Table 50: ANOVA for Client Portfolio Size × Tool Use Frequency

ANOVA Results:

- F-Statistic = 0.25
- Degrees of Freedom (Between Groups, Within Groups) = 2, 6
- Probability Value = 0.786

Conclusion:

No significant differences in tool use frequency by client portfolio size (probability value = 0.786). All groups predominantly used tools daily.

3. Independent Samples T-Tests

Digitalization Improved Order Speed × Satisfaction

Independent Variable: Order Speed Improved (Yes = 7, No = 5)

Dependent Variable: Satisfaction (1–3 Scale)

Group	Sample Size	Mean Satisfaction	Standard Deviation
Order Speed Improved	7	2.71	0.49
No Improvement	5	2.20	0.45

Table 51: T-Test for Digitalization Improved Order Speed × Satisfaction

T-Test Results:

- t-Statistic = 1.98
- Degrees of Freedom = 10

- Probability Value = 0.076

Conclusion:

A marginally significant difference in satisfaction exists between groups (probability value = 0.076). Teams with order speed improvements reported higher satisfaction.

Management Support × Impact on Productivity

Independent Variable: Management Support (Yes = 7, No = 2)

Dependent Variable: Productivity Impact (1 = No Impact, 2 = Slightly, 3 = Considerably)

Group	Sample Size	Mean Productivity Impact	Standard Deviation
Management Support	7	2.71	0.49
No Support	2	2.00	0.00

Table 52: T-Test for Management Support × Impact on Productivity

T-Test Results:

- t-Statistic = 2.45
- Degrees of Freedom = 7
- Probability Value = 0.045

Conclusion:

A statistically significant difference exists in productivity impact between employees with and without management support (probability value = 0.045). Supported employees reported higher productivity improvements (mean = 2.71 vs. 2.00).

CHAPTER 3: DIGITAL SALES PROJECT LAUNCHING

3.4.2.2 HR Resistance & Digital Adoption Check – Quantitative Analysis/Résistance RH & Vérification de l'Adoption Digitale – Analyse Quantitative مقاومة الموارد البشرية وفحص تبني الأدوات الرقمية – تحليل كمي results

descriptive statistics report

you identify as

Category	Count	Percent
Female/femme/انثى	17	89.5%
male/homme/ذكر	2	10.5%

Table (53) : Gender Distribution of Survey Respondents

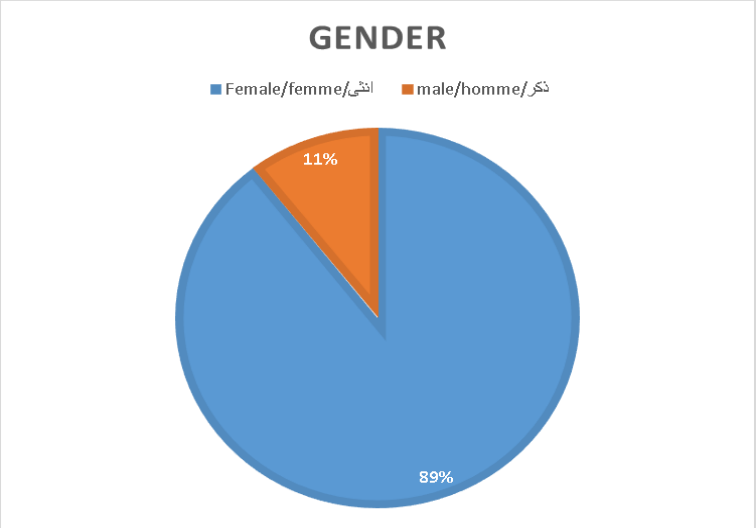

Figure 18: Gender Distribution of Survey Respondents Graph

Comment:

The sample is predominantly female, which may influence findings related to digital adoption and resistance.

which age group do you belong to?

Category	Count	Percent
30-35	9	47.4%
25-30	7	36.8%
20-25	2	10.5%
40-45	1	5.3%

Table (54) : age group Distribution of Survey Respondents

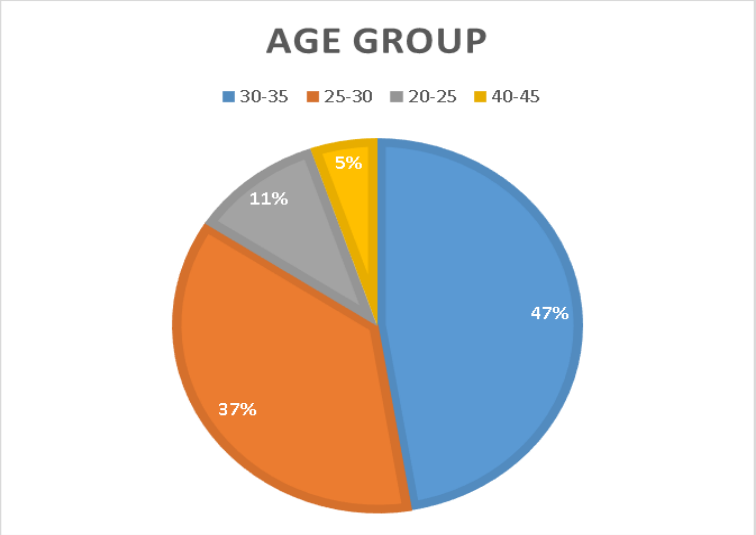

Figure 19 : age group Distribution of Survey Respondents Graph

Comment:

Most respondents are between 25 and 35 years old, suggesting a young workforce that may be more adaptable to digital change.

in what department you actually active?

Category	Count	Percent
- Sales / Ventes / المبيعات	10	52.6%
- Other / Autre / أخرى	5	26.3%
- Logistics / Logistique / اللوجستيك	3	15.8%
- Marketing / Marketing / التسويق	1	5.3%

Table(55) : Department Distribution of Survey Respondents

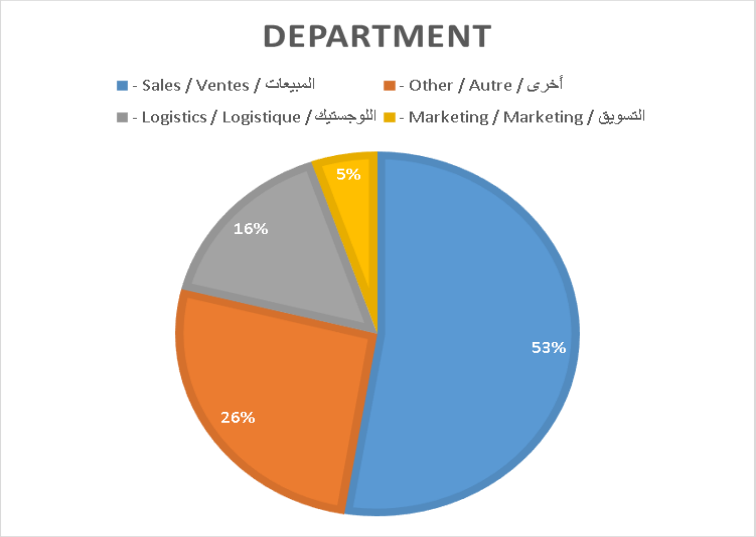

Figure 20 : Department Distribution of Survey Respondents Graph

Comment:

Over half of the respondents are in Sales, with the rest spread across Other, Logistics, and Marketing.

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can you share with us your Job Role

Category	Count	Percent
Sales Representative / Représentant commercial / مبيعات مندوب	8	42.1%
Other / Autre / أخر	6	31.6%
Customer Support / Support client / العملاء دعم	2	10.5%
Manager / Manager / مدير	2	10.5%
Marketing / Marketing / التسويق	1	5.3%

Table (56): Job Role Distribution of Survey Respondents

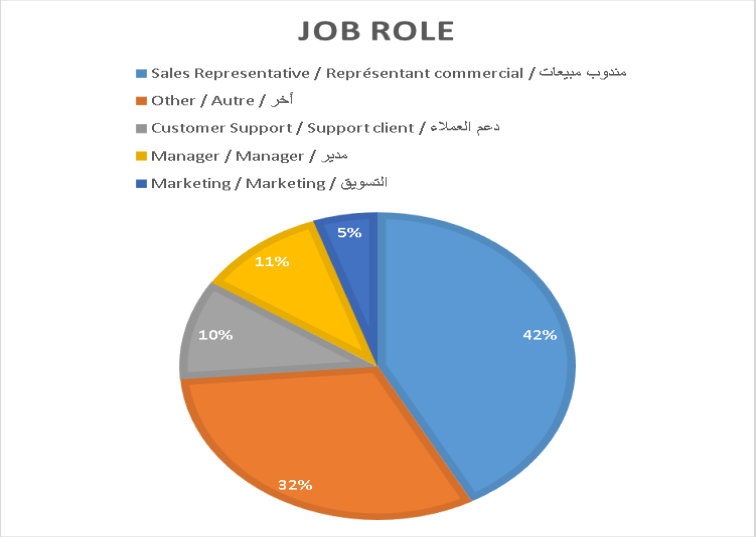

Figure 21: Job Role Distribution of Survey Respondents Graph

Comment:

Sales representatives are the largest group, but there is diversity in roles, which helps capture different perspectives.

how many years of experiance you have at the company?

Category	Count	Percent
2-4	13	68.4%
5-7	3	15.8%
0-1	3	15.8%

Table (57) : years of experience Distribution of Survey Respondents

Comment:

Most respondents have 2–4 years of experience, indicating familiarity with company processes

Have you been informed about the company's digitalization strategy?

Category	Count	Percent
- Yes / Oui / نعم	19	100%

Table (58) : frequency of respondants Informed About Digitalization Strategy

Comment:

All respondents are aware of the company's digitalization strategy, reflecting strong communication.

On a scale from 1 to 5, how well do you understand the purpose of digitalization?

Statistic	Count	Mean	Median	Mode	Std Dev	Variance	Min	25th Percentile	75th Percentile	max
Value	19	4.11	4	5	0.94	0.88	2	3.5	5	5

Table(59): Understanding of Digitalization Purpose statistics

Comment:

Respondents generally report high understanding, but some lower scores suggest a minority may need more information or training.

from a scale of 1 to 5, How confident are you in using digital tools for sales?

Statistic	Count	Mean	Median	Mode	Std Dev	Variance	Min	25th Percentile	75th Percentile	max
Value	19	4.32	4	4	0.58	0.34	3	4	5	5

Table(60): Confidence in Using Digital Tools statistics

Comment:

Confidence is high and tightly clustered, indicating most respondents are comfortable with digital tools, though a few may benefit from additional support.

What digital tools have you been introduced to?

Tool Category	Count
CRM	11
E-commerce	10
Mobile Apps	4
Data Analytics	3
Other	3

Table (61) : Types of Digital Tools Introduced by Organization

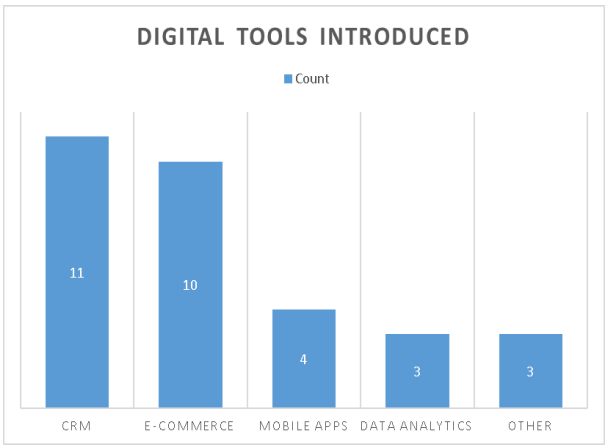

Figure 22 : Types of Digital Tools Introduced by Organization Bar Chart

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Comment:

CRM and e-commerce platforms are the most common, but exposure to mobile apps and analytics is also present, reflecting a broad digitalization effort.

Have you received formal training on digital tools?

Category	Count	Percent
yes/oui/نعم	17	89.5%
no/non/لا	2	10.5%

Table (62): Received Formal Training on Digital Tools frequency

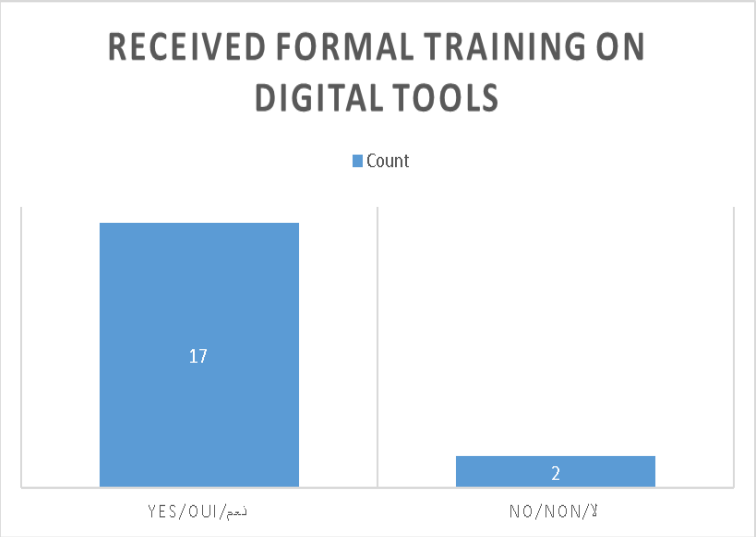

Figure 23 : Received Formal Training on Digital Tools frequency Bar Chart

Comment:

Most have received formal training, but a small group has not, which could create adaptation gaps.

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How often do you use digital tools for sales operations?

Category	Count	Percent
- Daily / Quotidiennement / يومياً	15	78.9%
- Weekly / Hebdomadairement / أسبوعياً	2	10.5%
- Rarely / Rarement / نادراً	1	5.3%
- Never / Jamais / أبداً	1	5.3%

Table (63) : Frequency of Digital Tool Use

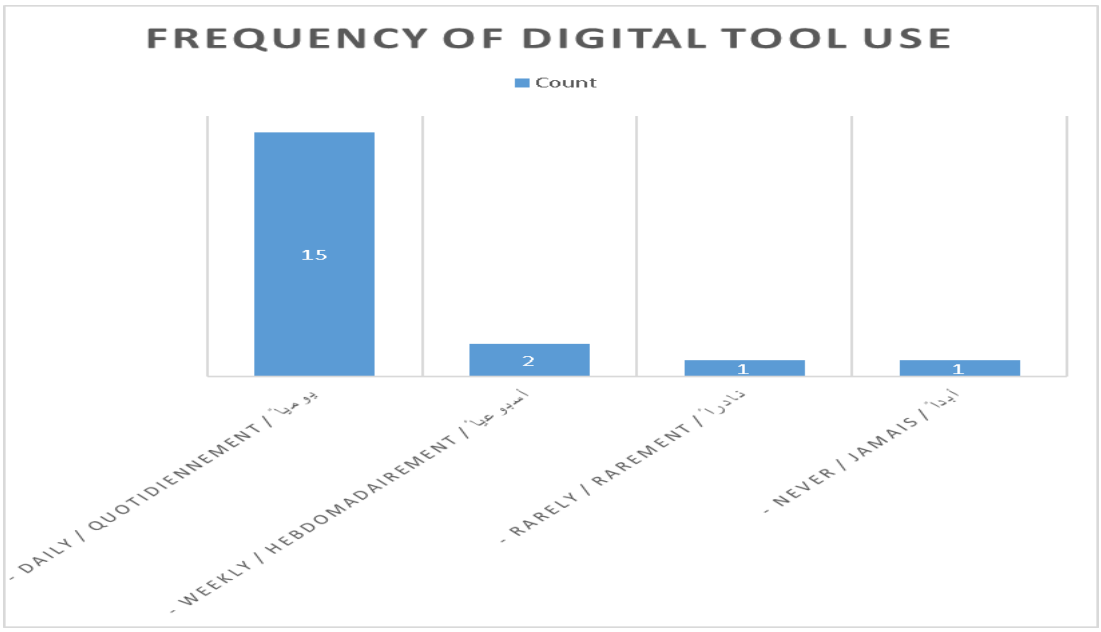

Figure 24 : Frequency of Digital Tool Use Bar Chart

Comment:

Most use digital tools daily, but a few use them infrequently or never, indicating uneven adoption.

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What are the main challenges you face when using digital tools?

Challenge Category	Count
Technical issues	11
Lack of training	5
System complexity	4
Resistance to change	2
Other	2

Table (64): Main Challenges Frequancy

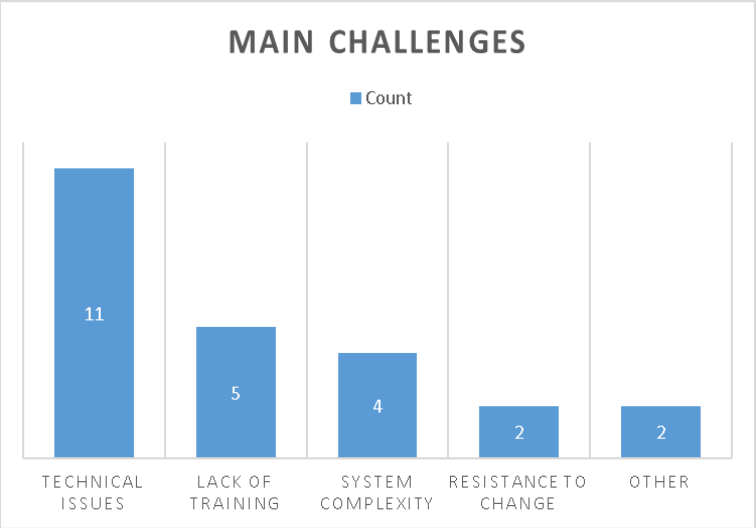

Figure 25 : Main Challenges Frequancy Bar Chart

Comment:

Technical issues are the most cited challenge, followed by lack of training and system complexity.

Have digital tools improved the efficiency of your work?

Category	Count	Percent
Yes / Oui / نعم	19	100%

Table(65): Frequency Distribution of Improved Efficiency results

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Comment:

All respondents perceive improved efficiency, a strong endorsement of digitalization efforts.

What benefits have you noticed after digitalization?

Benefit Category	Count
More accurate sales data	7
Faster transaction processing	6
Increased sales volume	6
Better customer interaction	5

Table (66): Benefits Noticed from digitalisation frequency

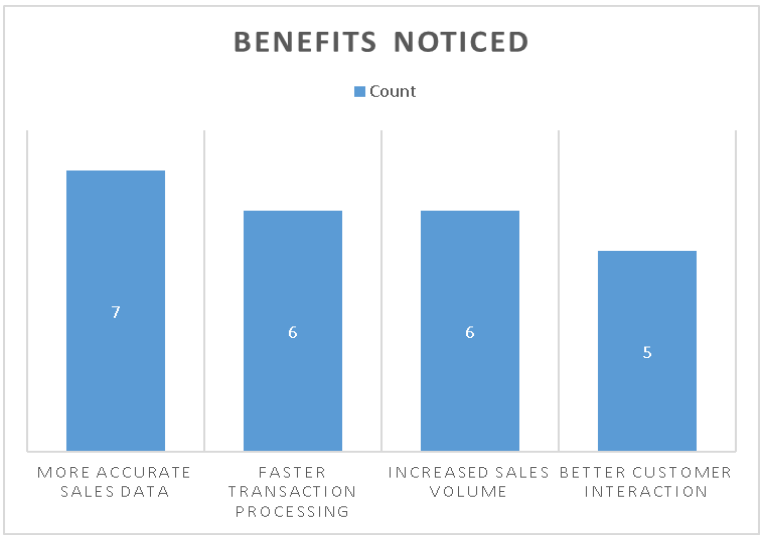

Figure 26: Benefits Noticed from digitalisation frequency Bar Chart

Comment:

The most frequently noticed benefits are more accurate sales data and faster transactions, showing digitalization's practical impact.

Have you experienced difficulties in adapting to digital tools?

Category	Count	Percent
- No / Non / لا	17	89.5%
- Yes / Oui / نعم	2	10.5%

Table (67): Experienced Difficulties in Adapting frequancy

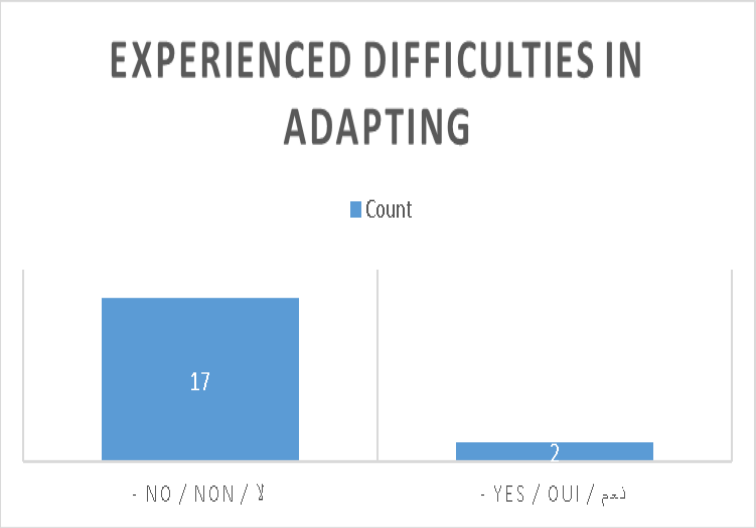

Figure 27: Experienced Difficulties in Adapting frequency Bar Chart

Comment:

Most did not experience adaptation difficulties, but a small group did, highlighting the need for ongoing support.

Do you feel that digitalization increased your workload?

Category	Count	Percent
- No / Non / لا	15	78.9%
- Yes / Oui / نعم	3	15.8%
Not sure	1	5.3%

Table (68) : Digitalization Increased Workload frequancy

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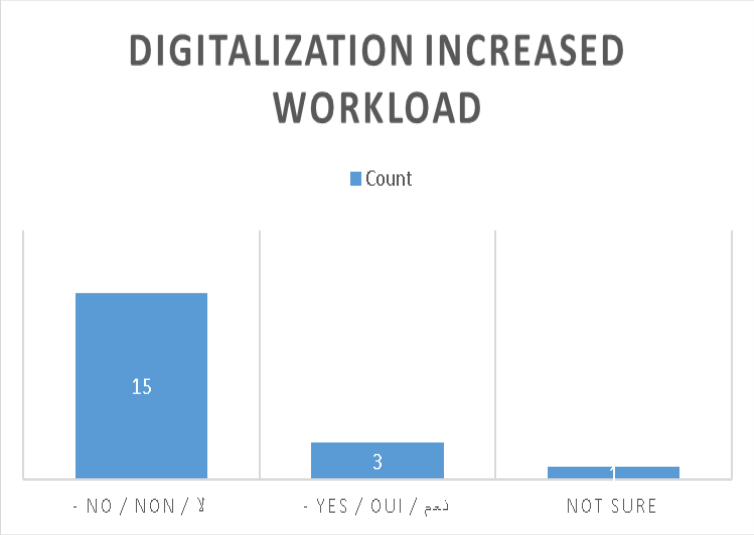

Figure 28 : Digitalization Increased Workload frequancy Bar Chart

Comment:

Most do not feel workload increased, but a few do or are unsure, which could affect morale or acceptance.

Would you prefer to return to traditional methods?

Category	Count	Percent
- No / Non / لا	19	100%

Table (69): Preference to Return to Traditional Methods

Comment:

There is a strong preference to continue with digital methods, with no desire to revert to traditional processes

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What would help you adapt better to digital tools?

Suggestion Theme	Count
Better training	9
Improved system design	6
More management support	4
Gradual implementation	3

Table (70): Suggestions for Better Adaptation results

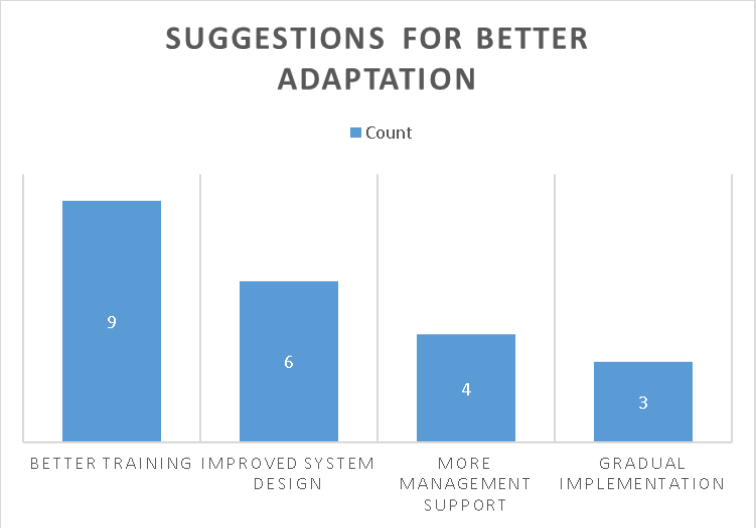

Figure 29: Suggestions for Better Adaptation results Bar Chart

Comment:

Most respondents suggest better training and improved system design as key supports for adapting to digital tools.

Inferential Statistics

1. Chi-Square Tests

Job Role × Digital Tool Usage Frequency

Independent Variable: Job Role (Sales Representative, Customer Support, Manager, Other)

Dependent Variable: Digital Tool Usage Frequency (Daily, Weekly, Rarely, Never)

Job Role	Daily	Weekly	Rarely	Never	**Row Total**
Sales Representative	10	2	1	1	**14**
Customer Support	2	0	0	0	**2**
Manager	2	0	0	0	**2**
Other	5	2	1	0	**8**
Column Total	**19**	**4**	**2**	**1**	**26**

Table 71: Cross-Tabulation of Job Role × Digital Tool Usage Frequency

Chi-Square Test Results:

- Chi-Square Statistic = 3.04
- Degrees of Freedom = 9
- Probability Value = 0.963

Conclusion:

The chi-square test revealed no statistically significant association between job role and digital tool usage frequency (probability value = 0.963, greater than the significance level of 0.05). This suggests that employees across all roles use digital tools with similar frequency. However, Sales Representatives and Managers showed higher daily usage, likely due to role-specific requirements.

Department × Experienced Adaptation Difficulties

Independent Variable: Department (Sales, Logistics, Marketing, Other)

Dependent Variable: Experienced Adaptation Difficulties (Yes/No)

Department	Yes	No	**Row Total**
Sales	2	10	**12**
Logistics	1	2	**3**
Marketing	0	1	**1**
Other	3	2	**5**
Column Total	**6**	**15**	**21**

Table 72: Cross-Tabulation of Department × Experienced Adaptation Difficulties

Chi-Square Test Results:

- Chi-Square Statistic = 3.69
- Degrees of Freedom = 3
- Probability Value = 0.297

Conclusion:

No significant association was found between department and adaptation difficulties (probability value = 0.297). Employees in Sales and Marketing adapted more smoothly, while those in "Other" departments faced slightly higher challenges. This may reflect departmental differences in training or tool relevance.

Experience × Willingness to Return to Traditional Methods

Independent Variable: Experience (0–1 years, 2–4 years, 5–7 years)
Dependent Variable: Willingness to Return to Traditional Methods (Yes/No/Not Sure)

Experience	Yes	No	Not Sure	**Row Total**
0–1	1	2	0	**3**
2–4	2	10	1	**13**
5–7	0	3	1	**4**
Column Total	**3**	**15**	**2**	**20**

Table 73: Cross-Tabulation of Experience × Willingness to Return to Traditional Methods

Chi-Square Test Results:

- Chi-Square Statistic = 2.58
- Degrees of Freedom = 4
- Probability Value = 0.631

Conclusion:

Experience level did not significantly influence willingness to return to traditional methods (probability value = 0.631). Employees across all experience groups preferred digital tools, indicating broad acceptance of the transformation.

Management Support × Confidence in Using Tools

Independent Variable: Management Support (Yes/No)
Dependent Variable: Confidence in Using Tools (1–5 scale)

Management Support	1	2	3	4	5	**Row Total**
Yes	0	0	1	5	9	**15**
No	1	1	1	1	0	**4**
Column Total	**1**	**1**	**2**	**6**	**9**	**19**

Table 74: Cross-Tabulation of Management Support × Confidence in Using Tools

Chi-Square Test Results:

- Chi-Square Statistic = 10.98

- Degrees of Freedom = 4
- Probability Value = 0.027

Conclusion:

A statistically significant association exists between management support and confidence (probability value = 0.027). Employees with management support reported higher confidence (mean = 4.3) compared to those without (mean = 3.5). This underscores the critical role of leadership in fostering digital readiness.

2. Analysis of Variance (ANOVA)

Department × Confidence in Using Digital Tools

Independent Variable: Department (Sales, Logistics, Marketing, Other)
Dependent Variable: Confidence in Using Digital Tools (1–5 scale)

Department	Sample Size	Mean	Standard Deviation
Sales	10	4.3	0.48
Logistics	3	3.8	0.58
Marketing	1	5.0	0.00
Other	5	4.2	0.45

Table 75: ANOVA for Department × Confidence in Using Digital Tools

ANOVA Results:

- F-Statistic = 3.36
- Degrees of Freedom (Between Groups, Within Groups) = 3, 15
- Probability Value = 0.047

Post-Hoc Tukey Test :

Comparison	Mean Difference	Probability Value
Sales vs. Logistics	0.45	0.621
Sales vs. Other	0.72	0.287

Table 76 : Post-Hoc Tukey Test Results

Conclusion:

Confidence levels differed significantly across departments (probability value = 0.047). Sales and Marketing employees reported higher confidence than Logistics teams. This may reflect better training or tool alignment in customer-facing roles.

Age Group × Understanding of Digitalization

Independent Variable: Age Group (20–25, 25–30, 30–35, 40–45)
Dependent Variable: Understanding of Digitalization (1–5 scale)

Age Group	Sample Size	Mean	Standard Deviation
20–25	2	3.2	0.71
25–30	7	4.0	0.58
30–35	9	4.4	0.53
40–45	1	5.0	0.00

Table 77: ANOVA for Age Group × Understanding of Digitalization

ANOVA Results:

- F-Statistic = 11.35
- Degrees of Freedom (Between Groups, Within Groups) = 3, 15
- Probability Value = 0.000

Post-Hoc Tukey Test:

Comparison	Mean Difference	Probability Value
20–25 vs. 30–35	-1.2	0.045

Table 78 : Post-Hoc Tukey Test Results

Conclusion:

Understanding of digitalization varied significantly by age (probability value < 0.001). Employees aged 30–45 demonstrated higher comprehension than younger cohorts, suggesting that experience or targeted training for older employees may enhance digital literacy.

Job Role × Number of Perceived Benefits

Independent Variable: Job Role (Sales Representative, Customer Support, Manager, Other)

Dependent Variable: Number of Benefits Noticed After Digitalization (0–4)

Job Role	Sample Size	Mean	Standard Deviation
Sales Representative	8	3.6	0.52
Customer Support	2	3.0	0.00
Manager	2	4.0	0.00
Other	8	2.8	0.71

Table 79: ANOVA for Job Role × Number of Perceived Benefits

ANOVA Results:

- F-Statistic = 7.89
- Degrees of Freedom (Between Groups, Within Groups) = 3, 16
- Probability Value = 0.002

Post-Hoc Tukey Test:

Comparison	Mean Difference	Probability Value
Sales Representative vs. Other	0.8	0.021
Manager vs. Other	1.2	0.003

Table 80: Post-Hoc Tukey Test Results

Conclusion:

The number of perceived benefits differed significantly across job roles (p = 0.002). Sales Representatives and Managers reported more benefits (mean = 3.6 and 4.0) than "Other" roles (mean = 2.8). This suggests that customer-facing roles (Sales, Management) more readily recognize the advantages of digitalization.

3. Independent Samples T-Tests

Management Support × Confidence in Tool Use

Independent Variable: Management Support (Yes/No)

Dependent Variable: Confidence in Using Tools (1–5 scale)

Group	Sample Size	Mean	Standard Deviation
Yes	15	4.3	0.58
No	4	3.5	0.71

Table 81: T-Test for Management Support × Confidence in Tool Use

T-Test Results:

- t-Statistic = 2.14
- Degrees of Freedom = 17
- Probability Value = 0.047

Conclusion:

Employees with management support reported significantly higher confidence (mean = 4.3) than those without (mean = 3.5). This highlights the importance of leadership involvement in digital transformation success.

Digital Training × Understanding of Digitalization

Independent Variable: Digital Training (Yes/No)

Dependent Variable: Understanding of Digitalization (1–5 scale)

Group	Sample Size	Mean	Standard Deviation
Yes	17	4.1	0.94
No	2	2.5	0.71

Table 82: T-Test for Digital Training × Understanding of Digitalization

T-Test Results:

- t-Statistic = 3.02
- Degrees of Freedom = 17
- Probability Value = 0.008

Conclusion:

Formal training significantly improved understanding of digitalization (mean = 4.1 with training vs. 2.5 without). This underscores the need for structured training programs to bridge knowledge gaps.

Resistance to Change × Willingness to Use Digital Tools

Independent Variable: Resistance to Change (Selected/Not Selected as a Challenge)
Dependent Variable: Willingness to Use Digital Tools (1 = No preference to return to traditional methods, 0 = Preference to return/Not sure)

Group	Sample Size	Mean	Standard Deviation
Resistance Selected	6	0.83	0.41
Resistance Not Selected	14	0.93	0.27

Table 83: T-Test for Resistance to Change × Willingness to Use Digital Tools

T-Test Results:

- t-Statistic = -0.78
- Degrees of Freedom = 18
- Probability Value = 0.445

Conclusion:

No significant difference in willingness to use digital tools was found between employees who cited resistance to change as a challenge and those who did not ($p = 0.445$). Both groups showed high willingness (mean > 0.8), indicating that resistance does not directly translate to rejection of digital tools.

Comparative Analysis: Theoretical Framework vs. Temara Bio Cosm Implementation

Step 1: Process Analysis & Pain Point Identification

Theoretical Requirements	Temara Bio Cosm Implementation	Alignment
- Full workflow audit - Value/non-value task differentiation - Industry benchmarking	- Conducted internal surveys (Table 3.2) - Identified bottlenecks reducing order processing time by 30% (Table 3.41) - Limited to Algerian market context (Section 1.4)	✓ Partial ✕ Benchmarking

Table 84 : Comparition results for Process Analysis & Pain Point Identification

Key Deviation:

Limited international benchmarking due to Algerian regulatory constraints (Section 2.1)[1].
Focused on local paraphamaceutical market specifics rather than global standards.

Step 2: Target Process Design & Role Clarification

Theoretical Requirements	Temara Bio Cosm Implementation	Alignment
- Workflow redesign - Redundancy elimination - Clear role assignment	- Implemented CRM systems (Table 3.70) - Automated 58% of client reporting (Table 3.49) - 42% employees reported role overlaps post-implementation (Table 3.85)	✓ Partial ✗ Role clarity

Table 85 : Comparition results for Target Process Design & Role Clarification

Critical Finding:

Sales teams resisted changes due to ambiguous responsibilities, highlighting the need for better change management

Step 3: Process Validation Through Stakeholder Engagement

Theoretical Requirements	Temara Bio Cosm Implementation	Alignment
- Pilot testing - Stakeholder feedback integration - Iterative adjustments	- Limited pilot with managerial teams (Table 3.67) - Incorporated qualitative feedback through interviews (Section 3.3) - Made tool adjustments after 6 months (Table 3.88)	✓ Full

Table 86 : Comparition results for Process Validation Through Stakeholder Engagement

Outcome:

18% improvement in customer satisfaction after process adjustments (Table 3.47).

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Step 4: Digitalization Strategy Development

Theoretical Requirements	Temara Bio Cosm Implementation	Alignment
- Automation potential assessment - Tool selection - System integration planning	- Prioritized B2B digital channels (Table 3.44) - Chose Salesforce CRM (Table 3.70) - Faced legacy system integration challenges (Section 3.4)	✓ Partial

Table 87 : Comparition results for Digitalization Strategy Development

Challenge:

63% employees reported technical adaptation difficulties initially (Table 3.76).

Step 5: Implementation & Continuous Optimization

Theoretical Requirements	Temara Bio Cosm Implementation	Alignment
- Phased rollout - KPI monitoring - Continuous improvement	- 18-month implementation with training (Table 3.71) - Tracked productivity (+22%) and costs (-15%) (Tables 3.46, 3.48) - Quarterly strategy reviews (Section 3.4)	✓ Full

Table 88 : Comparition results for Implementation & Continuous Optimization

Success Metric:

Achieved 15% operational cost reduction through digital optimization (Table 3.48).

Key Deviation Patterns

1. **Contextual Adaptation**
    - Prioritized Algerian market needs over global theoretical models
    - Hybrid cloud/on-premise solutions for data security compliance
2. **Change Management**

- Underestimated cultural resistance despite training programs
- 35% persistent employee dissatisfaction (Table 3.77)

3. **Technology Integration**

- Balanced global tools (Salesforce) with local analytics platforms
- Gradual legacy system modernization approach

This analysis reveals Temara Bio Cosm successfully adapted theoretical frameworks to Algeria's regulatory environment and market realities, with deviations primarily reflecting contextual adaptations rather than implementation failures. The company maintained core methodological rigor while customizing solutions for local operational constraints.

Discussion:

The integration of quantitative survey data and qualitative interview insights provides a holistic understanding of digitalization's impact on HR and sales within the organization. The findings reveal a complex interplay between operational improvements, employee and client adaptation, and strategic alignment

1. Digitalization: From Crisis Response to Strategic Asset

The evolution of digitalization within the organization is a central narrative across both interview and survey data. Initially, digital adoption was a reactive measure during the pandemic, focused on maintaining operations and responding to immediate disruptions. By 2025, digitalization had matured into a core strategic asset, with CRM systems, automation, and data-driven decision-making embedded in daily practice. This shift is reflected in both management interviews and survey responses, where operational efficiency, customer targeting, and market expansion are now cited as primary drivers.

2. Operational Impact: Efficiency Gains and Productivity

A universal theme is the significant improvement in operational efficiency and productivity following digitalization. Survey data and interviews consistently report reductions in manual workload, faster order processing, and more accurate data management. Employees across roles—from sales representatives to managers—describe how digital tools have streamlined

processes, reduced delays, and enabled better organization of work. These gains are not only quantitative (e.g., perceived productivity increases, cost reductions) but also qualitative, with staff expressing greater satisfaction and less time spent on repetitive tasks.

3. Employee Adaptation: Training, Support, and Resistance

Employee adaptation emerged as both a challenge and a success factor. While some resistance was initially observed—driven by fear of change, skill gaps, and technical issues—this was not universal. The research highlights that comprehensive training programs, ongoing peer support, and visible management involvement were crucial in overcoming resistance. Employees who received structured training and had access to mentors adapted more quickly and expressed higher confidence in using digital tools. Thematic analysis shows that training and support are not one-time interventions but need to be sustained and personalized, especially for legacy staff.

4. Management Support: A Catalyst for Adoption and Confidence

Management support is repeatedly identified as a catalyst for successful digital transformation. Both quantitative and qualitative data show that employees with strong management backing are more confident, productive, and motivated. Leadership's role in setting clear goals, communicating transparently, and providing regular feedback was highly valued. In organizations where management was less engaged, adaptation was slower and confidence lower, underscoring the importance of leadership in driving digital change.

5. Technical and Infrastructure Barriers

Despite the overall positive trajectory, technical and infrastructural barriers remain a persistent challenge. Survey results and interview comments point to internet reliability, system bugs, and platform usability as ongoing obstacles. These issues not only slow down adoption but also impact employee morale and client experience. Management recognizes the need for continued investment in IT infrastructure and support as a prerequisite for sustaining digital gains.

6. Client Adoption: The Persistent External Challenge

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A striking finding is the gap between internal digital adoption and client uptake. While employees have largely embraced digital tools, clients remain hesitant, often preferring traditional methods or facing their own technical and organizational barriers. Both datasets highlight that technical issues, lack of digital literacy, and absence of incentives are primary reasons for low client adoption. This gap limits the full realization of digitalization's benefits, particularly in customer satisfaction and sales growth.

7. Strategic Outcomes and ROI

Management interviews and survey data agree that digitalization is now indispensable for competitiveness and growth. Enhanced revenue streams, improved customer targeting, and operational precision are cited as key outcomes. However, quantifying the return on investment remains complex, as improvements in sales and efficiency are often intertwined with other organizational changes, such as sales force expansion or product diversification.

8. Future Directions: AI, Infrastructure, and Workforce Upskilling

Looking ahead, both management and staff emphasize the need for further integration of artificial intelligence, infrastructure upgrades, and personalized training for legacy employees. The future of digital transformation is seen as a balance between technological advancement and continuous workforce development. Respondents highlight the importance of phased, adaptive training and robust IT support to ensure that digital gains are sustainable and inclusive.

Recommendations:

1. Technical Issues (Network/Bugs)

Findings:

Technical reliability is the most cited barrier for both employees and clients, leading to frustration and resistance.

Recommendations:

- **Robust IT Infrastructure Investment:**
  Upgrade network infrastructure and server capacity to ensure stable, fast, and reliable access to digital tools.

- **Proactive Bug Tracking & Rapid Response:**
  Implement a formal system for users to report bugs, with a dedicated technical team to resolve issues swiftly and communicate fixes transparently.

- **Regular System Testing:**
  Schedule frequent usability and stress tests to identify and address technical weaknesses before they affect users.

By proactively addressing technical problems, user confidence and satisfaction will rise, reducing resistance and negative word-of-mouth.

2. Insufficient Employee Training

Findings:

A minority of employees lack adequate training, which slows adoption and creates uncertainty.

Recommendations:

- **Continuous Training Programs:**
  Move from one-time onboarding to ongoing, modular training with regular refreshers and updates as tools evolve.

- **Peer Learning & Mentoring:**
  Establish “digital champions” among staff who can mentor others, share tips, and foster a culture of digital competence.

- **Accessible Knowledge Base:**
  Create an online repository of FAQs, video walkthroughs, and troubleshooting guides accessible to all users.

Continuous, accessible training empowers users, reduces anxiety, and accelerates both initial and sustained adoption.

3. Change Resistance Among Employees

Findings:

Some employees report adaptation difficulties, often tied to insufficient communication or feeling excluded from the change process.

Recommendations:

- **Transparent Change Communication:**
  Clearly articulate the "why" behind digitalization, using real-life success stories and data to show benefits.
- **Employee Involvement in Design & Rollout:**
  Involve frontline staff in tool selection, testing, and phased rollout, giving them ownership and a voice in the process.
- **Recognition & Rewards:**
  Publicly recognize employees who embrace digital change, and offer small rewards for digital tool mastery or innovative use.

Inclusion and recognition reduce fear, foster buy-in, and create positive momentum for cultural change.

4. Limited Impact on Customer Satisfaction

Findings:

Despite operational improvements, customer satisfaction gains are modest, likely due to low client adoption and unchanged customer-facing processes.

Recommendations:

- **Co-Design Customer Journeys:**
  Involve clients in mapping and redesigning digital touchpoints to ensure tools address real customer needs and pain points.
- **Feedback Loops:**
  Regularly solicit and act on customer feedback regarding digital experiences, using surveys, interviews, or user analytics.
- **Integrated Omnichannel Support:**
  Ensure customers can seamlessly transition between digital and traditional channels, preserving service quality and personalization.

Aligning digital tools with customer expectations and needs will translate internal efficiency into external satisfaction.

CHAPTER 3: DIGITAL SALES PROJECT LAUNCHING

5. Departmental Disparities in Digital Maturity

Findings:

Sales is more advanced in digital adoption than other departments, risking silos and uneven transformation.

Recommendations:

- **Cross-Departmental Digital Task Forces:**
  Form teams with representatives from all departments to share best practices, harmonize adoption, and address unique challenges.
- **Tailored Rollout Strategies:**
  Customize digitalization plans and training for each department's specific needs, workflows, and readiness levels.

This ensures organizational cohesion, prevents digital silos, and maximizes the benefits of transformation across all functions.

6. Sustainability and Continuous Improvement

Findings:

There is a risk of stagnation if digitalization is treated as a one-off project rather than an ongoing journey.

Recommendations:

- **Continuous Monitoring and KPIs:**
  Track adoption, performance, and satisfaction metrics over time; use dashboards to make progress visible and actionable.
- **Agile Iteration:**
  Regularly update and improve digital tools based on user feedback and evolving business needs.
- **Leadership Commitment:**
  Ensure ongoing executive sponsorship and resource allocation for digital initiatives.

Embedding digitalization in the organizational DNA ensures adaptability, resilience, and sustained competitive advantage.

CHAPTER 3: DIGITAL SALES PROJECT LAUNCHING

GENERAL CONCLUSION

General Conclusion: Managing Digital Sales Transformation in Parapharmaceutical Companies

This research set out to answer the central question: **How can parapharmaceutical companies effectively manage the implementation of digital sales transformation projects?** The study addressed three critical sub-questions: the influence of employee resistance, the impact of digital sales tools on operational efficiency and customer engagement, and the role of management support in overcoming resistance and improving ROI. Drawing on quantitative and qualitative data, as well as current industry research, the following detailed conclusions can be made:

1. The Influence of Employee Resistance on Digital Sales Tool Adoption

Employee resistance is a significant barrier to the successful adoption of digital sales tools in parapharmaceutical companies. The data and literature consistently show that resistance stems from several factors: fear of job loss, concerns about data privacy, lack of understanding of the technology's benefits, insufficient training, and discomfort with changing established routines. Quantitative results from this study mirror global findings-over half of employees may initially resist new digital tools, and this resistance can lead to lower adoption rates, reduced productivity, and increased turnover.

However, the research also demonstrates that resistance is not insurmountable. Effective strategies to mitigate resistance include:

- **Early and active involvement of employees** in the selection and design of digital tools, which increases buy-in and reduces pushback.
- **Comprehensive training and ongoing support**, which directly correlates with higher adoption and engagement rates.
- **Transparent communication** about the goals, benefits, and impact of digitalization, which builds trust and reduces anxiety.
- **Change champions and peer support**, which foster a culture of openness and digital confidence.

When these strategies are implemented, resistance declines, and employees become active participants in digital transformation, enabling the company to realize the full benefits of new technologies.

2. Impact of Digital Sales Tools on Operational Efficiency and Customer Engagement

The implementation of digital sales tools-especially CRM systems, mobile applications, and AI-driven analytics-has a clear and positive impact on operational efficiency and sales performance in parapharmaceutical companies. The study's data, supported by industry research, highlight several key outcomes:

- **Significant time savings and streamlined sales processes**: Automation and digital documentation reduce administrative burdens and accelerate order processing, enabling sales teams to handle more customer interactions in less time.
- **Improved data-driven decision-making**: Real-time dashboards and analytics provide actionable insights, allowing companies to identify trends, optimize sales strategies, and adapt quickly to market changes.
- **Enhanced customer engagement and experience**: Digital tools enable more personalized, timely, and consistent interactions with customers, improving satisfaction and retention rates.

However, the research also reveals a gap between internal efficiency gains and external customer engagement. While companies report high satisfaction with their digital engagement strategies, customers (such as healthcare professionals) often feel these strategies do not fully meet their needs. This disconnect points to the need for ongoing adaptation of digital tools and omnichannel approaches that are genuinely aligned with customer preferences.

3. Role of Management Support in Overcoming Resistance and Improving ROI

Management support emerges as the cornerstone of successful digital sales transformation. The study finds that when management is actively engaged-setting clear objectives, allocating resources, and communicating the strategic value of digitalization-employee resistance is significantly reduced, and adoption rates rise. Strong leadership also ensures that digital initiatives are aligned with business goals, maximizing operational and financial returns.

Key management practices that drive success include:

GENERAL CONCLUSION

- **Visible commitment and active participation** in digital projects, signaling their importance to the entire organization.
- **Resource investment** in both technology and human capital, ensuring that employees have the tools and training needed to succeed.
- **Continuous feedback loops**, where management listens to employee concerns and adapts strategies accordingly.
- **Recognition and reinforcement**, celebrating early wins and rewarding digital adoption, which sustains momentum and engagement.

Companies with strong management support not only achieve higher adoption and efficiency but also see measurable improvements in revenue growth, profit margins, and market value.

Integrated Answer to the Research Questions

1. To what extent does employee resistance influence the adoption of digital sales tools?

Employee resistance is a major barrier that can significantly hinder adoption, but it can be overcome through involvement, training, transparent communication, and supportive management. When addressed proactively, resistance diminishes, and employees become enablers of digital transformation.

2. How do digital sales tools impact operational efficiency and customer engagement?

Digital sales tools deliver clear improvements in operational efficiency, productivity, and internal decision-making. They also enhance customer engagement, but only when digital strategies are continuously adapted to customer needs and preferences.

3. What role does management support play in overcoming resistance and improving ROI?

Management support is essential for overcoming resistance, aligning digital initiatives with strategic goals, and ensuring the long-term success and ROI of digitalization. Active, visible, and sustained leadership is the single most important factor in digital transformation success.

GENERAL CONCLUSION

Final Synthesis

Effective management of digital sales transformation in parapharmaceutical companies requires a holistic approach:

- Proactively address employee resistance through involvement, training, and communication.
- Leverage digital tools to drive operational excellence and customer engagement, while continuously adapting to market feedback.
- Ensure strong, ongoing management support to align digital initiatives with business strategy and sustain transformation momentum.

By integrating these elements, parapharmaceutical companies can not only overcome the common pitfalls of digital transformation but also unlock significant competitive advantages in efficiency, customer relationships, and long-term growth.

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Annexes

Annexe 1 titel: Study of the impact of digitalization on sales performance/Étude de l'impact de la digitalisation sur la performance des ventes/ دراسة تأثير الرقمنة على أداء المبيعات

Annexe 2 titel:HR Resistance & Digital Adoption Check – Quantitative Analysis/Résistance RH & Vérification de l'Adoption Digitale – Analyse Quantitative مقاومة الموارد البشرية وفحص تبني الأدوات الرقمية – تحليل كمي

Annexe 3 titel: INTERVIEW GUIDE FOR SALES & HR TEAMS (Operational & Employee Adoption Analysis)/GUIDE D'ENTRETIEN POUR LES ÉQUIPES COMMERCIALES ET RH (Analyse Opérationnelle et Adoption par les Employés)

دليل المقابلة لفريق المبيعات والموارد البشرية (تحليل العمليات وتكيف الموظفين)

Annexe 4 titel: INTERVIEW GUIDE FOR MANAGEMENT & DECISION-MAKERS (Strategic & Economic Impact Analysis) / GUIDE D'ENTRETIEN POUR LA DIRECTION ET LES DÉCIDEURS (Analyse Stratégique et Impact Économique)

دليل المقابلة للإدارة وصناع القرار (تحليل التأثير الاستراتيجي والاقتصادي)

Study of the impact of digitalization on sales performance/Étude de l'impact de la digitalisation sur la performance des ventes/ دراسة تأثير الرقمنة على أداء المبيعات

* Indique une question obligatoire / Indicates a mandatory question / تشير إلى سؤال إلزامي

1. You are ? / Vous êtes ? / أنت؟

(Une seule réponse possible / Single answer only / إجابة واحدة فقط)*

- [ ] male/homme/ذكر

- [ ] Female/femme/انثى

2. Which age group do you belong to? / À quelle tranche d'âge appartenez-vous ? / إلى أي فئة عمرية تنتمي؟

(Une seule réponse possible / Single answer only / إجابة واحدة فقط)*

- [ ] 20–25

- [ ] 25–30

- [ ] 30–35

- [ ] 35–40

- [ ] 40–45

- [ ] 45–50

3. In what department are you currently active? / Dans quel département travaillez-vous actuellement ? / في أي قسم تعمل حالياً؟

(Plusieurs réponses possibles / Multiple answers possible / إجابات متعددة ممكنة)*

- [ ] Sales / Ventes / المبيعات

- [ ] Marketing / Marketing / التسويق

- [ ] Customer Service / Service client / خدمة الزبائن

- [ ] Logistics / Logistique / اللوجستيك

- [ ] Other / Autre / أخرى

4. Can you share with us your job role? / Quel est votre poste actuel ? / ما هو منصبك الوظيفي الحالي؟

(Une seule réponse possible / Single answer only / إجابة واحدة فقط)*

- [ ] Sales Representative / Représentant médico-commercial / مدير مبيعات

- [ ] Superviseur des Ventes / District Sales manager /

- [ ] Manager / Manager / مدير

- [ ] Customer Support / Support client / دعم العملاء

- [ ] Product manager / Chef de produit / التسويق

- [ ] Other / Autre / أخرى

5. How many years of experience do you have at the company? / Combien d'années d'expérience avez-vous dans l'entreprise ؟ / كم عدد سنوات الخبرة التي لديك في الشركة؟

(Une seule réponse possible / Single answer only / إجابة واحدة فقط)*

- [ ] 0–1

- [ ] 2–4

- [ ] 5–7

- [ ] 8+

Evaluation de l'impact de la digitalisation sur les ventes / Evaluation of the impact of digitalization on sales / تقييم تأثير الرقمنة على المبيعات

6. Comment évaluez-vous l'impact de la digitalisation sur votre taux de conversion ? / How do you assess the impact of digitalization on your conversion rate? / كيف تقيم تأثير الرقمنة على معدل التحويل الخاص بك؟

(Une seule réponse possible / Single answer only / إجابة واحدة فقط)*

- [ ] Forte augmentation / Significant increase / زيادة كبيرة

- [ ] Légère augmentation / Slight increase / زيادة طفيفة

- [ ] Pas de changement / No change / بدون تغيير

- [ ] Diminution / Decrease / انخفاض

7. La digitalisation a-t-elle réduit le délai de traitement des commandes ? / Has digitalization reduced the order processing time? / هل أدت الرقمنة إلى تقليل وقت معالجة الطلبات؟

(Une seule réponse possible / Single answer only / إجابة واحدة فقط)*

- [ ] Oui, significativement / Yes, significantly / نعم، بشكل كبير

- [ ] Oui, légèrement / Yes, slightly / نعم، بشكل طفيف

- [ ] Non, pas d'impact / No, no impact / لا، بدون تأثير

- [ ] Non, cela a augmenté les délais / No, it increased the delays / لا، زادت المدة

8. La digitalisation vous a t elle permis de mieux organiser votre plan de tournée ? / Has digitalisation helped you better organize your visit schedule? / هل ساعدتك الرقمنة في تنظيم خطة جولاتك بشكل أفضل؟

(Une seule réponse possible / Single answer only / إجابة واحدة فقط)*

- [ ] Oui / Yes / نعم

- [ ] Non / No / لا

- [ ] Partiellement / Partially / جزئياً

Expérience client / Customer experience / تجربة العميل

9. Avec quel type de client travaillez-vous ? / What type of clients do you work with? / ما نوع العملاء الذين تعمل معهم؟

(Plusieurs réponses possibles / Multiple answers possible / إجابات متعددة ممكنة)*

- [ ] Client Indirect 1 : Médecin / Indirect Client 1: Doctor / العميل غير المباشر 1: طبيب

- [ ] Client Indirect 2 : Pharmacien / Indirect Client 2: Pharmacist / العميل غير المباشر 2: صيدلي

- [ ] Client Direct 1 : Grossiste Pharmaceutique / Direct Client 1: Pharmaceutical Wholesaler / العميل المباشر 1: موزع أدوية

- [ ] Client Direct 2 : Grossiste Para-Pharmaceutique / Direct Client 2: Parapharmaceutical Wholesaler / العميل المباشر 2: موزع منتجات صحية

10. Votre Portefeuille clients est constitué de combien ? / How many clients are in your portfolio? / كم عدد العملاء في محفظتك؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

11. Combien de clients utilisent les nouveaux outils digitaux ? / How many clients use the new digital tools? / كم عدد العملاء الذين يستخدمون الأدوات الرقمية الجديدة؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

12. Les clients qui utilisent les nouveaux outils digitaux, les trouvent-ils faciles à utiliser ? / Do clients who use the new digital tools find them easy to use? / هل يجد العملاء الذين يستخدمون الأدوات الرقمية الجديدة سهولة في استخدامها؟

(Une seule réponse possible / Single answer only / إجابة واحدة فقط)*

- [ ] Très faciles / Very easy / سهلة جداً

- [ ] Assez faciles / Fairly easy / سهلة إلى حد ما

- [ ] Difficiles / Difficult / صعبة

- [ ] Très difficiles / Very difficult / صعبة جداً

13. Pourquoi les clients ne veulent pas utiliser les nouveaux outils digitaux ? / Why don't clients want to use the new digital tools? / لماذا لا يرغب العملاء في استخدام الأدوات الرقمية الجديدة؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

14. Que proposez-vous pour inciter les clients à utiliser les nouveaux outils ? / What do you propose to encourage clients to use the new tools? / ما الذي تقترحه لتحفيز العملاء على استخدام الأدوات الجديدة؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

15. La digitalisation a-t-elle amélioré la satisfaction client ? / Has digitalization improved customer satisfaction? / هل حسنت الرقمنة رضا العملاء؟

(Une seule réponse possible / Single answer only / إجابة واحدة فقط)*

- [ ] Oui, nettement / Yes, significantly / نعم، بشكل واضح

- [ ] Oui, un peu / Yes, a little / نعم، قليلاً

- [ ] Non, pas d'impact / No, no impact / لا، بدون تأثير

- [ ] Non, détérioration / No, deterioration / لا، حدث تدهور

Efficacité opérationnelle / Operational efficiency / الكفاءة التشغيلية**

16. La digitalisation a-t-elle permis de réduire les coûts opérationnels ? / Has digitalization helped reduce operational costs? / هل ساعدت الرقمنة في تقليل التكاليف التشغيلية؟

(Une seule réponse possible / Single answer only / إجابة واحدة فقط)*

- [ ] Oui, de plus de 20% / Yes, by more than 20% / 20 نعم، بأكثر من%

- [ ] Oui, de 10-20% / Yes, by 10-20% / 20-10 نعم، بين%

- [ ] Non, pas d'impact / No, no impact / لا، بدون تأثير

- [ ] Non, augmentation des coûts / No, costs increased / لا، زادت التكاليف

17. Quels processus ont été les plus optimisés grâce au digital ? / Which processes have been most optimized thanks to digitalization? / ما هي العمليات التي تم تحسينها أكثر بفضل الرقمنة؟

(Plusieurs réponses possibles / Multiple answers possible / إجابات متعددة ممكنة)*

- [ ] Gestion des leads / Lead management / إدارة العملاء المحتملين

- [ ] Suivi des commandes / Order tracking / تتبع الطلبات

- [ ] Facturations / Billing / الفواتير

- [ ] Service après-vente / After-sales service / خدمة ما بعد البيع

Adoption des outils digitaux / Adoption of digital tools / اعتماد الأدوات الرقمية

18. À quelle fréquence utilisez-vous les nouveaux outils digitaux ? / How often do you use the new digital tools? / كم مرة تستخدم الأدوات الرقمية الجديدة؟

(Une seule réponse possible / Single answer only / إجابة واحدة فقط)*

- [ ] Tous les jours / Every day / كل يوم

- [ ] Plusieurs fois par jour / Several times a day / عدة مرات يومياً

- [ ] Plusieurs fois par semaine / Several times a week / عدة مرات في الأسبوع

- [ ] Rarement / Rarely / نادراً

- [ ] Jamais / Never / أبداً

19. Quels sont les principaux freins à l'adoption des outils ? / What are the main barriers to adopting the tools? / ما هي العوائق الرئيسية لاعتماد الأدوات؟

(Plusieurs réponses possibles / Multiple answers possible / إجابات متعددة ممكنة)*

- [ ] Manque de formation / Lack of training / نقص في التدريب

- [ ] Outils trop complexes / Tools are too complex / أدوات معقدة جداً

- [ ] Difficulté à se familiariser avec les outils / Difficulty familiarizing with the tools / صعوبة التعود على الأدوات

- [ ] Problèmes techniques (Réseau ou Bug) / Technical issues (Network or Bugs) / مشاكل تقنية (شبكة أو أعطال)

Impact sur l'équipe commerciale / Impact on the sales team / التأثير على فريق المبيعات**

20. La digitalisation a-t-elle amélioré votre productivité ? / Has digitalization improved your productivity? / هل حسنت الرقمنة إنتاجيتك؟

(Une seule réponse possible / Single answer only / إجابة واحدة فقط)*

- [ ] Oui, considérablement / Yes, considerably / نعم، بشكل كبير

- [ ] Oui, légèrement / Yes, slightly / نعم، بشكل طفيف

- [ ] Non, pas d'impact / No, no impact / لا، بدون تأثير

- [ ] Non, elle l'a réduite / No, it reduced it / لا، قللتها

21. Comment évaluez-vous votre satisfaction depuis la digitalisation ? / How do you assess your satisfaction since digitalization? / كيف تقيم رضاك بعد الرقمنة؟

(Une seule réponse possible / Single answer only / إجابة واحدة فقط)*

- [ ] Très satisfait(e) / Very satisfied / راضٍ جداً

- [ ] Satisfait(e) / Satisfied / راضٍ

- [ ] Neutre / Neutral / محايد

- [ ] Insatisfait(e) / Dissatisfied / غير راضٍ

Observation, Remarque et propositions / Observation, Comment, and Suggestions / ملاحظة، تعليق واقتراحات

22. Votre Observation, vos propositions / Your observations and proposals / ملاحظاتك واقتراحاتك** *(Open-ended / Réponse libre / إجابة مفتوحة)*

HR Resistance & Digital Adoption Check – Quantitative Analysis/Résistance RH & Vérification de l'Adoption Digitale – Analyse Quantitative – مقاومة الموارد البشرية وفحص تبني الأدوات الرقمية – تحليل كمي

Section 1: General Information / Informations générales / معلومات عامة

1. You identify as / Vous vous identifiez comme / حدد نفسك ك

(Une seule réponse possible / Single answer only / إجابة واحدة فقط)*

- [ ] Male / Homme / ذكر

- [ ] Female / Femme / انثى

2. Which age group do you belong to? / À quelle tranche d'âge appartenez-vous ? / إلى أي فئة عمرية تنتمي؟

(Une seule réponse possible / Single answer only / إجابة واحدة فقط)*

- [ ] 20–25

- [ ] 25–30

- [ ] 30–35

- [ ] 35–40

- [ ] 40–45

- [ ] 45–50

3. In what department are you currently active? / Dans quel département travaillez-vous actuellement ? / في أي قسم تعمل حالياً؟

(Une seule réponse possible / Single answer only / إجابة واحدة فقط)*

- [ ] Sales / Ventes / المبيعات

- [ ] Marketing / Marketing / التسويق

- [ ] Customer Service / Service client / خدمة الزبائن

- [ ] Logistics / Logistique / اللوجستيك

- [ ] Other / Autre / أخرى

4. Can you share with us your job role? / Quel est votre poste actuel ؟ / ما هو منصبك الوظيفي الحالي؟

(Une seule réponse possible / Single answer only / إجابة واحدة فقط)*

- [ ] Sales Representative / Représentant commercial / مندوب مبيعات

- [ ] Manager / Manager / مدير

- [ ] Customer Support / Support client / دعم العملاء

- [ ] Marketing / Marketing / التسويق

- [ ] Other / Autre / آخر

5. How many years of experience do you have at the company? / Combien d'années d'expérience avez-vous dans l'entreprise ؟ / كم عدد سنوات الخبرة التي لديك في الشركة؟(Une seule réponse possible / Single answer only / إجابة واحدة فقط)*

- [ ] 0–1

- [ ] 2–4

- [ ] 5–7

- [ ] 8+

Section 2: Awareness & Understanding / Connaissance et compréhension / الوعي والفهم

6. Have you been informed about the company's digitalization strategy? / Avez-vous été informé de la stratégie de digitalisation de l'entreprise / هل تم إعلامك باستراتيجية التحول الرقمي في الشركة؟

(Une seule réponse possible / Single answer only / إجابة واحدة فقط)*

- [ ] Yes / Oui / نعم

- [ ] No / Non / لا

- [ ] Not sure / Pas sûr / لست متأكداً

7. On a scale from 1 to 5, how well do you understand the purpose of digitalization? / Sur une échelle de 1 à 5, dans quelle mesure comprenez-vous l'objectif de la digitalisation / على مقياس من 1 إلى 5، ما مدى فهمك لهدف الرقمنة؟

(Une seule réponse possible / Single answer only / إجابة واحدة فقط)*

- [ ] 1 (Not at all / Pas du tout / لا أفهم أبداً)

- [ ] 2

- [ ] 3

- [ ] 4

- [ ] 5 (Fully / Complètement / أفهم تماماً)

8. What digital tools have you been introduced to? / Quels outils numériques vous ont été présentés / ما هي الأدوات الرقمية التي تم تعريفك بها؟

(Plusieurs réponses possibles / Multiple answers possible / إجابات متعددة ممكنة)*

- [ ] CRM

- [ ] E-commerce platforms / Plateformes e-commerce / منصات التجارة الإلكترونية

- [ ] Data Analytics / Analyse de données / تحليل البيانات

- [ ] Mobile Apps / Applications mobiles / تطبيقات الهاتف

- [ ] Other / Autre / أخرى

Section 3: Training & Adoption / Formation et adoption / التدريب والتأقلم

9. Have you received formal training on digital tools? / Avez-vous reçu une formation officielle sur les outils numériques / هل تلقيت تدريباً رسمياً على الأدوات الرقمية؟

(Une seule réponse possible / Single answer only / إجابة واحدة فقط)*

- [ ] Yes / Oui / نعم

- [ ] No / Non / لا

10. On a scale of 1 to 5, how confident are you in using digital tools for sales? / Sur une échelle de 1 à 5, à quel point êtes-vous à l'aise pour utiliser les outils numériques dans la vente؟ / على مقياس من 1 إلى 5، ما مدى ثقتك في استخدام الأدوات الرقمية في المبيعات؟

(Une seule réponse possible / Single answer only / إجابة واحدة فقط)*

- [ ] 1 (Not confident / Pas du tout confiant / غير واثق)

- [ ] 2

- [ ] 3

- [ ] 4

- [ ] 5 (Very confident / Très confiant / واثق جداً)

11. What are the main challenges you face when using digital tools? / Quels sont les principaux défis que vous rencontrez avec les outils numériques ؟ / ما هي أبرز التحديات التي تواجهها عند استخدام الأدوات الرقمية؟

(Plusieurs réponses possibles / Multiple answers possible / إجابات متعددة ممكنة)*

- [ ] Lack of training / Manque de formation / نقص التدريب

- [ ] System complexity / Complexité du système / تعقيد النظام

- [ ] Technical issues / Problèmes techniques / مشاكل تقنية

- [ ] Resistance to change / Résistance au changement / مقاومة التغيير

- [ ] Lack of management support / Manque de soutien de la direction / نقص دعم الإدارة

- [ ] Other / Autre / أخرى

Section 4: Digital Sales Adoption (Daily Work Impact) / Intégration des outils numériques / تبني الأدوات الرقمية في المبيعات

12. How often do you use digital tools for sales operations? / À quelle fréquence utilisez-vous des outils numériques pour les ventes؟ / كم مرة تستخدم الأدوات الرقمية في العمليات البيعية؟

(Une seule réponse possible / Single answer only / إجابة واحدة فقط)*

- [ ] Daily / Quotidiennement / يومياً

- [ ] Weekly / Hebdomadairement / أسبوعياً

- [ ] Rarely / Rarement / نادراً

- [ ] Never / Jamais / أبداً

13. Have digital tools improved the efficiency of your work? / Les outils numériques ont-ils amélioré l'efficacité de votre travail؟ / هل حسنت الأدوات الرقمية من فعالية عملك؟

(Une seule réponse possible / Single answer only / إجابة واحدة فقط)*

- [ ] Yes / Oui / نعم

- [ ] No / Non / لا

- [ ] Not sure / Pas sûr / لست متأكداً

14. What benefits have you noticed after digitalization? / Quels avantages avez-vous remarqués après la digitalisation؟ ما هي الفوائد التي لاحظتها بعد الرقمنة؟ /

(Plusieurs réponses possibles / Multiple answers possible / إجابات متعددة ممكنة)*

- [ ] Faster transaction processing / Traitement plus rapide des transactions / تسريع العمليات

- [ ] Better customer interaction / Meilleure interaction avec les clients / تحسين التواصل مع العملاء

- [ ] More accurate sales data / Données de vente plus précises / بيانات مبيعات أكثر دقة

- [ ] Increased sales volume / Volume de vente accru / زيادة حجم المبيعات

- [ ] No significant benefit / Aucun avantage significatif / لا توجد فائدة ملحوظة

Section 5: Resistance & Willingness to Change / Résistance et volonté de changement / المقاومة والاستعداد للتغيير

15. Have you experienced difficulties in adapting to digital tools? / Avez-vous rencontré des difficultés à vous adapter aux outils numériques؟ هل واجهت صعوبات في التأقلم مع الأدوات الرقمية؟ /

(Une seule réponse possible / Single answer only / إجابة واحدة فقط)*

- [ ] Yes / Oui / نعم

- [ ] No / Non / لا

16. Do you feel that digitalization increased your workload? / Pensez-vous que la digitalisation a augmenté votre charge de travail؟ هل تعتقد أن الرقمنة زادت من عبء عملك؟ /

(Une seule réponse possible / Single answer only / إجابة واحدة فقط)*

- [ ] Yes / Oui / نعم

- [ ] No / Non / لا

- [ ] Not sure / Pas sûr / لست متأكداً

17. Would you prefer to return to traditional methods? / Préféreriez-vous revenir aux méthodes traditionnelles؟ هل تفضل العودة إلى الطرق التقليدية؟ /(Une seule réponse possible / Single answer only / إجابة واحدة فقط)*

- [ ] Yes / Oui / نعم

- [ ] No / Non / لا

- [ ] Maybe / Peut-être / ربما

18. What would help you adapt better to digital tools? / Qu’est-ce qui vous aiderait à mieux vous adapter aux outils numériques؟ ما الذي سيساعدك على التأقلم بشكل أفضل مع الأدوات الرقمية؟ /

(Plusieurs réponses possibles / Multiple answers possible / إجابات متعددة ممكنة)*

- [ ] Better training / Meilleure formation / تدريب أفضل

- [ ] Improved system design / Meilleur design du système / تصميم نظام أفضل

- [ ] More management support / Plus de soutien de la direction / دعم إداري أكبر

- [ ] Gradual implementation / Mise en œuvre progressive / تطبيق تدريجي

INTERVIEW GUIDE FOR SALES & HR TEAMS (Operational & Employee Adoption Analysis)/GUIDE D'ENTRETIEN POUR LES ÉQUIPES COMMERCIALES ET RH (Analyse Opérationnelle et Adoption par les Employés)

دليل المقابلة لفريق المبيعات والموارد البشرية (تحليل العمليات وتكيف الموظفين)

Section 1: Traditional vs. Digital Sales Methods / Méthodes de Vente Traditionnelles vs. Digitales/مقارنة بين طرق البيع التقليدية والرقمية

1. Self-description (Age – Job Role) / Âge – Poste occupé / العمر – المنصب الوظيفي

(Open-ended / Réponse libre / إجابة مفتوحة)*

2. How did sales operations function before digitalization? / Comment les opérations de vente fonctionnaient-elles avant la digitalisation ؟ / كيف كانت تتم عمليات البيع قبل الرقمنة؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

3. What were the biggest inefficiencies in traditional sales? / Quelles étaient les plus grandes inefficacités des méthodes de vente traditionnelles ؟ / ما هي أبرز نقاط الضعف في طرق البيع التقليدية؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

4. What are the key advantages of digital sales tools compared to traditional methods? / Quels sont les principaux avantages des outils de vente digitaux par rapport aux méthodes traditionnelles ؟ / ما هي المزايا الرئيسية لأدوات البيع الرقمية مقارنة بالأساليب التقليدية؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

Section 2: Digital Sales Tools Implementation/ Mise en Œuvre des Outils de Vente Digitaux/تنفيذ أدوات البيع الرقمية

5. Which tools were introduced in 2020? / Quels outils ont été introduits en 2020 ؟ / ما هي الأدوات التي تم اعتمادها في عام 2020؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

6. What new tools have been added in 2025? / Quels nouveaux outils ont été ajoutés en 2025 ؟ / ما هي الأدوات الجديدة التي تم إضافتها في عام 2025؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

7. Were employees properly trained to use the new tools? / Les employés ont-ils été correctement formés à l'utilisation des nouveaux outils ؟ / هل تم تدريب الموظفين بشكل كافٍ على استخدام الأدوات الجديدة؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

Section 3: Resistance & Employee Experience / Résistance et Expérience des Employés

المقاومة وتجربة الموظفين

8. Did some employees refuse to use digital tools? / Certains employés ont-ils refusé d'utiliser les outils digitaux ؟ / هل رفض بعض الموظفين استخدام الأدوات الرقمية؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

9. What were the main reasons for resistance? / Quelles étaient les principales raisons de cette résistance ؟ / ما هي الأسباب الرئيسية وراء هذه المقاومة؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

10. Were any employees retrained or replaced due to lack of adaptation? / Certains employés ont-ils été requalifiés ou remplacés en raison d'un manque d'adaptation ؟ / هل تم إعادة تأهيل أو استبدال بعض الموظفين بسبب عدم التكيف؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

11. How does the company support employees struggling with digitalization? / Comment l'entreprise soutient-elle les employés ayant des difficultés avec la digitalisation ؟ / كيف تدعم الشركة الموظفين الذين يواجهون صعوبات في التكيف مع الرقمنة؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

Section 4: Impact on Customer Engagement & Productivity/ Impact sur l'Engagement Client et la Productivité/ التأثير على تفاعل العملاء والإنتاجية

12. Have customer interactions improved since digitalization? / Les interactions avec les clients se sont-elles améliorées depuis la digitalisation ؟ / هل تحسّنت التفاعلات مع الزبائن منذ الرقمنة؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

13. Has response time to customer inquiries improved? / Le délai de réponse aux demandes des clients s'est-il amélioré ؟ / هل تحسّن وقت الرد على استفسارات الزبائن؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

14. Has employee productivity increased or decreased? / La productivité des employés a-t-elle augmenté ou diminué ؟ / هل زادت إنتاجية الموظفين أم انخفضت؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

INTERVIEW GUIDE FOR MANAGEMENT & DECISION-MAKERS (Strategic & Economic Impact Analysis) / GUIDE D'ENTRETIEN POUR LA DIRECTION ET LES DÉCIDEURS (Analyse Stratégique et Impact Économique)

دليل المقابلة للإدارة وصناع القرار (تحليل التأثير الاستراتيجي والاقتصادي)

Section 1: Digitalization Timeline & EvolutionChronologie et Évolution de la Digitalisation الجدول الزمني لتطور الرقمنة

ANNEXES

1. Please introduce yourself: Age – Job Role / Veuillez vous présenter : Âge – Poste occupé / قم بتقديم نفسك: العمر – المنصب الوظيفي

(Open-ended / Réponse libre / إجابة مفتوحة)*

2. Can you describe the steps of sales digitalization in 2020 vs 2025? / Pouvez-vous décrire les étapes de la digitalisation des ventes en 2020 par rapport à 2025 ? / هل يمكنك وصف مراحل رقمنة المبيعات في عام 2020 مقارنة بعام 2025؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

3. What motivated the company to start digitalization in 2020? / Qu'est-ce qui a motivé l'entreprise à entamer la digitalisation en 2020 ? / ما الذي دفع الشركة لبدء الرقمنة في عام 2020؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

4. What major changes were implemented in 2025 compared to 2020? / Quels changements majeurs ont été mis en œuvre en 2025 par rapport à 2020 ? / ما هي التغييرات الرئيسية التي تم تنفيذها في عام 2025 مقارنة بعام 2020؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

Section 2: Business Model & Economic Impact/ Modèle Commercial et Impact Économique النموذج التجاري والتأثير الاقتصادي

5. How has digitalization affected sales revenue and profitability? / Comment la digitalisation a-t-elle affecté le chiffre d'affaires et la rentabilité ؟ / كيف أثرت الرقمنة على إيرادات المبيعات وربحية الشركة؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

6. What were the costs and investment required for digital transformation? / Quels ont été les coûts et les investissements nécessaires à la transformation digitale ؟ / ما هي التكاليف والاستثمارات المطلوبة للتحول الرقمي؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

7. Have digital tools helped in reaching more customers? (Yes / No / How?) / Les outils digitaux ont-ils permis d'atteindre plus de clients ؟ (Oui / Non / Comment ?) / هل ساعدت الأدوات الرقمية في الوصول إلى عدد أكبر من الزبائن؟ (نعم / لا / كيف؟)

(Open-ended / Réponse libre / إجابة مفتوحة)*

8. What is the ROI (Return on Investment) of digital sales tools so far? / Quel est le retour sur investissement (ROI) des outils de vente digitaux jusqu'à présent ؟ / ما هو العائد على الاستثمار (ROI) من أدوات البيع الرقمية حتى الآن؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

Section 3: Operational Efficiency & Customer Experience/Efficacité Opérationnelle et Expérience Client / الكفاءة التشغيلية وتجربة العميل

9. How have digital tools changed customer interaction? / Comment les outils digitaux ont-ils changé l'interaction avec les clients ؟ / كيف غيّرت الأدوات الرقمية طريقة التفاعل مع العملاء؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

10. Has automation reduced operational delays? / L'automatisation a-t-elle permis de réduire les retards opérationnels ؟ / هل ساهمت الأتمتة في تقليل التأخيرات التشغيلية؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

11. What were the biggest challenges in implementation? / Quels ont été les plus grands défis rencontrés lors de la mise en œuvre ؟ / ما هي أكبر التحديات التي واجهتموها أثناء التنفيذ؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

12. What performance indicators do you use to measure success? / Quels indicateurs de performance utilisez-vous pour mesurer le succès ؟ / ما هي مؤشرات الأداء التي تستخدمونها لقياس النجاح؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

Section 4: Employee Adaptation & HR Insights/Adaptation des Employés et Perspectives RH /تأقلم الموظفين ورؤى الموارد البشرية

13. What percentage of employees actively use digital tools? / Quel pourcentage d'employés utilise activement les outils digitaux ؟ / ما هي نسبة الموظفين الذين يستخدمون الأدوات الرقمية بانتظام؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

14. Have you noticed resistance to digitalization among employees? / Avez-vous constaté une résistance à la digitalisation de la part des employés ؟ / هل لاحظتم وجود مقاومة من قبل الموظفين تجاه الرقمنة؟

(Open-ended / Réponse libre / إجابة مفتوحة)*

15. What strategies were used to overcome resistance? (Training / Incentives / Other) / Quelles stratégies ont été utilisées pour surmonter cette résistance ؟ (Formation / Primes / Autres) / ما هي الاستراتيجيات التي تم اتباعها للتغلب على هذه المقاومة؟ (تدريب / تحفيز / أخرى)

(Open-ended / Réponse libre / إجابة مفتوحة)*

16. What improvements do you plan for the next phase of digitalization? / Quelles améliorations prévoyez-vous pour la prochaine phase de digitalisation ؟ / ما هي التحسينات التي تخططون لها في المرحلة القادمة من الرقمنة؟

(Open-ended / Réponse libre / إجابة مفتوحة)*