Harnessing Informatica Product 360 for enhanced E-commerce success through Data and AI (Artificial Intelligence)

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Abstract

In the dynamic realm of e-commerce, organizations face the critical challenge of providing consumers with precise and comprehensive product information to drive sales. Managing diverse product data across multiple channels often hindered consistent delivery, impeding customer satisfaction and operational efficiency. Product 360, an innovative AI-driven solution built on Informatica's Intelligent Data Management Cloud™, addressed this challenge by revolutionizing product information management. It enabled enterprises to curate and disseminate rich, accurate, and contextual product data effortlessly.

Product experience management emerged as a vital practice, leveraging information and applications to support product-related processes across marketing, sales, commerce, customer service, and supply chain management. Informatica, a leader in data-centric technology, pioneered this approach, enhancing the administration and standardization of product content. By integrating robust data management solutions, the Product 360 tool optimized operational efficiency, elevated business performance, and redefined retail excellence, propelling organizations toward unprecedented success in the digital marketplace. This transformative approach ensured satisfaction across consumers, customers, partners, and suppliers, positioning enterprises at the forefront of their industries.

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1. Introduction

In today's fiercely competitive market, delivering an exceptional customer experience is paramount for every business.Customers demand rich, accurate, and readily accessible product information to make informed purchasing decisions. The challenge lies in ensuring that product data is not only relevant and complete but also trusted. With the right product information management strategy, businesses can achieve a single, trusted view of their data, automate processes, and foster seamless collaboration across teams, manufacturers, suppliers, distributors, and retailers. This constructive interaction results in an engaging product experience across all channels, accelerating time to value, increasing sales, enhancing brand loyalty, and setting new standards for customer experience.

Now is the critical moment to invest in an intelligent product information management solution, powered by Master Data, exclusively from Informatica. Product 360, a scalable and AI-powered product information application, leverages the Intelligent Data Management Cloud™ (IDMC) services. As part ofthe industry-leading master data management (MDM) service, Product 360 offers a comprehensive 360-degree view of all product content. This empowers business users to manage product information with unprecedented efficiency

through automated workflows and an intuitive, role-based user interface. The result is smarter, more agile collaboration both internally and with business partners.

The potential business improvements from master data management are substantial, yet often overlooked. Chief data officers, enterprise architects, and other data leaders must articulate these benefits in a manner that resonates with business stakeholders. McKinsey's Master Data Management Survey highlights four critical objectives driving organizations to mature their MDM capabilities: enhancing customer experience and satisfaction, boosting revenue growth through improved cross- and up-selling opportunities, increasing sales productivity, and streamlining reporting processes [1].These objectives underscore the transformative potential of effective master data management. By prioritizing these goals, organizations can deliver superior customer experiences, uncover lucrative sales opportunities, and optimize sales team efficiency. Additionally, streamlined reporting ensures timely and accurate insights, empowering better decision-making. Embracing advanced MDM solutions like Informatica Product 360 is pivotal in achieving these objectives, positioning organizations for sustained growth, operational excellence, and a competitive edge in today's data-driven marketplace. This paper elucidates key transformative benefits presented by mastering product data. By embracing these insights, businesses can harness the full power of their product data, driving sustained growth and market leadership.

2. Key Transformative Benefits

2.1. Streamlined Product Data Optimization

Organizations continuously grapple with the challenge of cleansing and reconciling product data spread across multiple repositories, often diverting valuable resources from strategic initiatives. Product 360 transforms this process by automating and streamlining data cleansing, ensuring accuracy and consistency with minimal manual intervention. This not only enhances data integrity but also allows users to focus on high-value tasks, driving innovation and operational excellence. By adopting this solution, organizations can achieve significant productivity gains and elevate their data management capabilities.
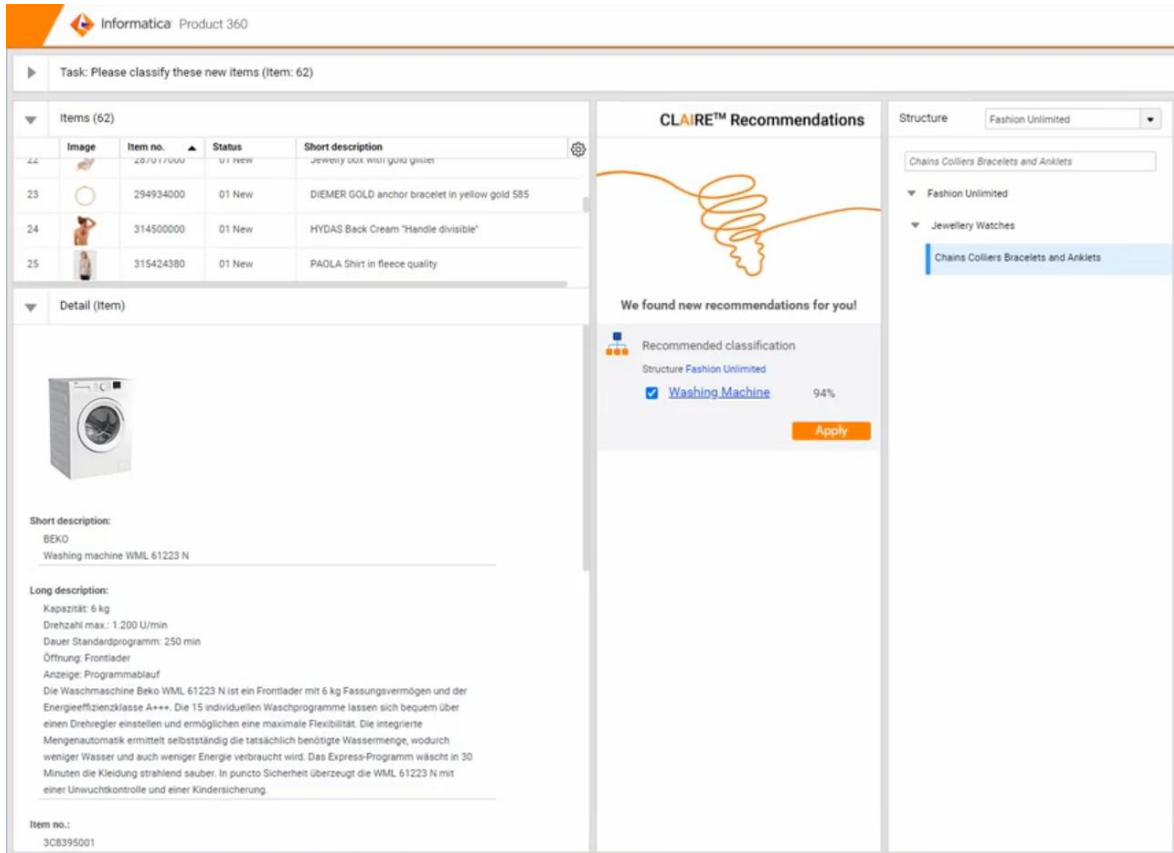
As organizations grow, either organically or through acquisitions, they often rely on homegrown repositories to manage product data. While initially effective, these solutions become cumbersome as data volumes and complexity increase, leading to silos, inconsistencies, and inefficiencies [2]. Informatica Product 360 modernizes data management by centralizing and standardizing product information, eliminating fragmented systems, and providing a single, trusted source of truth. This streamlines operations, enhances data accuracy and accessibility, and enables rapid responses to market demands and customer needs. Transitioning to this tool is a strategic imperative that drives efficiency, fosters innovation, and strengthens competitive advantage in a data-centric world.

Personnel managing product data are often bogged down by the manual extraction of data from disparate systems, including various PLM(Product Lifecycle Management) applications maintained by vendors. This labor-intensive process, based on a mix of formal and informal business rules, personal experience, or best guesses, results in wasted time and resources without guaranteeing data accuracy or reliability. Product 360 revolutionizes this flawed approach by automating and centralizing product data management. It ensures a single, trusted source of truth for all product information through advanced AI-powered workflows and intuitive user interfaces. This shift not only frees up valuable time for higher-value tasks but also guarantees data integrity and accuracy. By adopting this tool, organizations can streamline operations, enhance data reliability, and deliver superior customer experiences. It is time to move beyond guesswork and embrace a smarter, more efficient way of managing product data.

Product 360 tool simplifies the management of product information by empowering users to seamlessly acquire, author, reconcile, and publish a definitive record of product data within an intuitive, visually driven environment. This transformative capability not only ensures data integrity but also presents information in a cleaner, more comprehensive, and consistent manner. By streamling these processes, this toolcan unlock a substantial amount of time for users, enabling them to redirect their focus toward strategic initiatives and value-added tasks. Embracing this toolis not just about improving efficiency—it is about unleashing the full potential of your workforce and driving unparalleled innovation in product data management.

In a groundbreaking advancement for product data management, Informatica's CLAIRE™ recommendation service employs automated AI-driven classification to streamline and enhance the organization of product information. By harnessing state-of-the-art machine learning, CLAIRE™ seamlessly classifies product data into predefined taxonomies such as maintenance hierarchies or e-commerce structures,

eliminating the need for intricate manual tuning. The preconfigured accelerator allows for immediate deployment: simply generate a model within Product 360 to establish product-to-structure relationships. This model can then auto-suggest recommendations to business users or classify new product records in batch mode. This innovative solution not only optimizes data accuracy and consistency but also significantly boosts operational efficiency, setting a new industry standard.

Figure 1. *Machine Learning-Driven Automatic Classification using Informatica Product 360 [3]*

2.2. Turbocharged Sales Performance

Enhancing the conversion rate of online shoppers into buyers stands as a paramount objective driving the mastery of product data. Numerous companies contemplating the adoption of Product 360 recognize a critical deficiency in their ability to furnish accurate, timely, comprehensive, and authoritative product specifications, dimensions, and images to visitors on e-commerce platforms. The consequence? Suspected declines in order rates due to inadequate product content presentation. However, with the deployment of this solution, we anticipate a transformative shift. By providing precise, detailed, and comprehensive product information, businesses can mitigate the frequency of abandoned shopping carts, fostering greater customer engagement and catalyzing higher conversion rates. Organizations can adopt this tool to unleash the full potential of their e-commerce initiatives and propel their online sales to unprecedented heights.

In the competitive landscape of e-commerce, the organization faces a persistent challenge: a lower conversion rate from shopping cart to order compared to industry peers. Insightful company insiders attribute this discrepancy to deficiencies in product data, particularly the absence of crucial images and specifications, which hinder shoppers' willingness to complete purchases. Product 360 solution is a momentous change poised to revolutionize the organization's e-commerce dynamics. By leveraging this tool's robust capabilities, we anticipate a significant reduction in the rate of abandoned carts. With enhanced product data presentation, including comprehensive images and specifications, this solution empowers the organization to inspire confidence and drive conversions and it can be leveraged to propel the organization's e-commerce endeavors to new heights, surging ahead of the competition.

Harness the power of machine learning to modernize your product data management with Informatica Product 360's innovative Brand Extraction tool. This innovative solution uses advanced machine learning techniques to automatically extract brand names from product descriptions, streamlining the data entry

process [4]. The flexible UI (User Interface) component leverages intelligent user suggestions to accurately populate product fields, significantly reducing manual effort.

What sets this accelerator apart is its readiness for immediate deployment—no complex manual tuning is required. Pre-trained with existing product descriptions and brand names, it enables the rapid creation of a deep learning model tailored to your specific data. By integrating this tool, organizations can achieve unparalleled accuracy and efficiency in product data management, ensuring that brand information is consistently precise and up to date. This technology can be embraced to enhance your data integrity, improve operational efficiency, and gain a competitive edge in the marketplace.

2.3. Accelerated Market Entry

Unlocking unprecedented agility in the marketplace, Informatica Product 360 emerges as a transformative force, enabling organizations to introduce new products with unparalleled speed—up to 7 times faster than traditional methods [5]. This remarkable acceleration not only fortifies competitiveness but also safeguards against revenue erosion that may result from lagging behind competitors. Moreover, the adoption of this tool heralds a change in thinking in operational efficiency, saving significant effort among affected staff members. This tool will help to transcend conventional limitations, seize opportunities quickly, and propel your organization to the vanguard of innovation and profitability.

In the dynamic landscape of product introduction, company leadership acknowledges a pressing need for swifter market entry. Product 360 solution emerges as a catalyst for transformation, increasing the speed at which new products and SKUs are introduced to customers. By fostering enhanced collaboration among multifaceted teams responsible for product launch—spanning product management, web operations marketing, and merchandising—this tool accelerates product introduction across all channels. Notably, the platform facilitates direct supplier engagement, enabling seamless uploading and editing of product information, thereby circumventing time-consuming handoffs. The result? A dramatic reduction in time to market, empowering the company to rapidly monetize offerings that would otherwise languish in anticipation of launch. This tool can be leveraged to unleash the full potential of your product introduction strategies, surmount market challenges, and propel your organization to the forefront of innovation and profitability.

2.4. Eliminate Product Returns

In today's data-driven world, poor data quality remains a costly burden for organizations, with an average annual impact of a staggering $12.9 million [6]. In the realm of e-commerce, the integrity of product data is paramount. When organizations fail to master their product data, the likelihood of incomplete or inaccurate product information, dimensions, and images escalates. This gap often results in customers placing orders with uncertainty, hoping the delivered products meet their expectations. Unfortunately, incorrect, or incomplete product data frequently leads to disappointment, as customers receive items that do not align with their needs. This mismatch not only diminishes customer satisfaction but also drives up product return rates, eroding profitability and trust.

Informatica Product 360 offers a robust solution to this challenge, ensuring accurate, comprehensive, and up-to-date product information across all channels. By leveraging this solution, organizations can significantly reduce the incidence of returns, increase customer satisfaction, and enhance overall operational efficiency. Organizations can embrace this tool to perfect their product data management, eliminate costly returns, and cultivate a loyal customer base built on trust and reliability.

Delivering complete, accurate, and reliable product data is crucial for enhancing customer satisfaction and reducing operational costs. When customers are equipped with precise and detailed product information, the likelihood of them ordering the correct item increases significantly. For our retailer, this translates into a substantial reduction in product return rates and the associated costs. By leveraging Informatica Product 360, we can ensure that every product detail is meticulously managed and presented, fostering greater customer confidence, and streamlining the purchasing process. This tool can be leveraged to perfect your product data management, minimize costly returns, and drive sustainable growth and customer loyalty.

2.5. Amplified Advertising Impact

Optimizing advertising spend, particularly for direct advertising programs, is a formidable challenge when product data is deficient. Without clean and reliable data, companies struggle to effectively target loyalty program customers with personalized offers based on their purchase history. However, when a seller can integrate detailed customer insights with comprehensive product information, it can deliver highly relevant purchase recommendations and enhance the customer experience by providing the right product

information at the perfect moment. This precise targeting transforms the effectiveness of direct mail and email campaigns, ensuring that product offers resonate with customers and are more likely to convert. By mastering product data, we anticipate a substantial reduction in wasted advertising spend, maximizing the return on marketing investments and driving superior customer engagement. Informatica Product 360 can help you optimize your advertising strategies, amplify impact, and achieve unparalleled marketing efficiency.

Despite substantial advertising investments, organizational leadership suspects that marketing efforts are not generating the anticipated order volumes. The root of the problem lies in the incomplete and unreliable understanding of the products purchased by different customer cohorts. This deficiency hinders the creation of compelling offers and promotions tailored to customer preferences. For instance, gaps in product taxonomies and the lack of insight into commonly purchased item combinations prevent management from recognizing which additional products may interest customers who buy specific items.

By mastering product data, the organization can significantly reduce poorly targeted marketing spend, creating more effective and appealing offers. The impact is even more pronounced when both product data and customer data are harmonized, enabling precise and personalized marketing strategies. Adopting Informatica Product 360 will streamline how the organization leverages data, driving improved marketing efficiency, higher order rates, and enhanced customer satisfaction.

3. Conclusion

Navigating the complexities of product data management presents numerous challenges for organizations:

- Extensive product data scattered across multiple ERPs (Enterprise Resource Planning), PLMs, and various data repositories
- Missing and erroneous product images and specifications across different channels
- A lack of confidence among executive staff due to inconsistent characterization and categorization of related products across acquired companies
- Inconsistent product data manually entered by personnel, vendor staff, or supplied by external sources
- A dynamic environment marked by frequent product innovation and rapid obsolescence

These issues can significantly hamper operational efficiency, decision-making, and overall business performance. Informatica MDM - Product 360 offers a powerful solution, centralizing and standardizing product data management. In a world where online presence is paramount, this tool emerges as a meaningful change for industry giants like Unilever, Avnet, etc. By harnessing the power of this innovative solution, Unilever delivers rich, compelling online content that captivates customers and influences their purchasing decisions[7].By leveraging this robust platform, organizations can ensure consistent, accurate, and comprehensive product information across all channels. This transformation not only enhances data reliability but also restores executive confidence, streamlines operations, and adapts swiftly to market changes. This solution can effectively be used to conquer product data challenges, drive operational excellence, and secure a competitive edge in a fast-evolving market.

Mastering a single data domain, such as product data, consistently yields positive financial outcomes for organizations. However, the true potential lies in mastering multiple domains—including finance, customer, supplier, employee, and location data. This comprehensive approach often results in more than just an additive effect; it can generate a multiplicative impact due to the interconnected nature of these domains in an operational context.

For instance, the constructive collaboration between mastering both product data and customer data can produce significantly greater value than the sum of their contributions. This holistic mastery enhances decision-making, streamlines operations, and drives superior business performance across the board. By leveraging Informatica Product 360 alongside comprehensive data management strategies, organizations can unlock unprecedented levels of efficiency, insight, and financial growth, setting new standards for industry excellence.

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