THE Parker Avery GROUP

retail consulting and industry thought leadership

PLM Mobility:
Enabling Efficiency in an On-Demand World

In today's connected society, mobile devices and applications have made our personal lives increasingly dependent on instant access to information anywhere, anytime.

Why is this same expectation not yet consistently fulfilled in our business lives as well?

Whether a smartphone or tablet, the majority of the U.S. population owns one or more mobile device. According to Trinity Digital Marketing[1], over 1.2 billion people access the web from their mobile devices. That number will continue to rise as the explosion of mobile devices and applications not only makes it easier for people to have information right at their fingertips, but also offers additional functionality, such as geo-location, photo-recognition, scanning, personalization and more. The expectation of being constantly connected with a ubiquitous flow of information and functionality is indeed beginning to permeate our professional lives through increasingly well-conceived mobile business applications.

In the Product Lifecycle Management (PLM) space, organizations are beginning to view mobile applications as a mean to greatly increase efficiencies in their existing business processes and compliment or expand their PLM solution footprint. PLM users need timely and accurate access to information throughout the entire product lifecycle, and mobile solutions are fast becoming an integral part of the PLM process. As manufacturing processes become leaner and quicker, and global collaboration becomes an imperative, it is critical to be constantly and intimately able to both input and access information residing in PLM systems to avoid expensive errors and delays caused by antiquated communication processes.

[1] The Rise of Mobile infographic: http://www.trinitydigitalmarketing.com/the-rise-of-mobile-infographic.

To address this need, PLM solution vendors are investing in their applications. The desire for increased mobility has created new products, product features and technical solutions from browser based access to the entire PLM suite of apps with functionality addressing specific lifecycles including trend, product development, quality assurance, fit and collaboration.

In this Point of View, The Parker Avery Group explores the use of mobile technology in PLM solutions and processes, along with a high level overview of the business benefits and challenges associated with PLM Mobility. While many of the concepts discussed can be applied to other platforms and applications across the enterprise, our focus will specifically be on mobility in Product Lifecycle Management solutions.

PLM and Mobility

PLM is a set of processes and supporting technologies that enables the definition and management of a product from its inception until it is retired within an organization. The broadest definition of PLM includes activities that encompass conceiving, designing, developing, sourcing or making, and delivering the product while narrower definitions of PLM include only a subset of these activities. However, the general consensus is that PLM refers to the upfront processes of conceiving, designing and developing product.

Implementing a technology solution that supports end-to-end business processes, such as PLM, allows an organization to have a data repository that holds a "single version of the truth" as opposed to having information spread across multiple spreadsheets and individual computers. This allows for much greater collaboration and consistency between teams and external partners across the globe: the most up-to-date version is always accessible.

In the fast moving world of product development, mobile technology is becoming extremely important. PLM activities require retailers to develop, track, and manage branded or exclusive products from product conception through order fulfillment. Over the past few years, many advances and improvements have been made to PLM applications to make the product development process faster and more efficient. However, while PLM is the "single version of the truth," information gaps still remain between the product designers, factory and consumers. Many decisions and processes still happen outside the PLM system, and that information can be lost, delayed or inaccurate or simply not entered into the PLM system at all.

Enabling PLM processes with mobility can vastly improve communication, efficiency and data accuracy – in the end leading to better decision-making. Mobile applications give employees more flexibility in accessing corporate data and applications when traveling or working remotely. Mobility also increases productivity because employees can communicate with their colleagues more frequently and can quickly respond to issues that arise real time.

An organization must have in place the right processes, policies and procedures to support a mobile PLM work force. In the past, it was uncommon for the IT organization to allow “bring-your-own-device” (BYOD) programs, which allow employees to use their personal mobile devices for work. Today BYOD is an acceptable and scalable solution approach for mobile deployment. While there are enterprise security and personal privacy issues that must be managed, as well as the need to maintain application consistency across a myriad of devices and operating systems, employing BYOD practices helps reduce enterprise technology procurement and maintenance costs, while providing the opportunity to vastly improve productivity, efficiency and data integrity.

Benefits of Mobile PLM

There are a number of benefits to be realized as PLM software vendors continue to invest in developing stand-alone mobile solutions:

- Increased Functionality
- Improved Communication & Responsiveness
- Reduced Costs & Increased Sales
- Increased Productivity & More Flexibility

With the growing expectation that mobile-enabled enterprise applications are designed to make business processes more efficient and less constrained, these benefits are likely to be realized more quickly than those associated with traditional solutions. Adoption of these solutions is also likely to be widespread due to the nature of the businesses in questions who are driven by a need to be highly efficient at continuously developing, producing, procuring and selling through products.

True mobile PLM capabilities should expand beyond browser based access to the PLM application from a mobile device. It should serve different needs and audiences in the product development process. It should become application centric. Mobile devices are increasingly more powerful with features such as GPS and high definition cameras that leverage applications to take measurements, scan barcodes, and even translate text in pictures into different languages. It makes sense to use these and other capabilities in PLM and reap the benefits. When every mouse click measures speed to market and fast turnaround times are the norm, cutting out steps by generating and pushing content to the PLM application from a mobile device is clearly aligned with what the market needs *and* wants.

Visual applications allow a designer to capture and upload inspiration or product images while shopping overseas or attending trade shows, making these images immediately available for the development of storyboards and line plans. This reduction in lag time is a key benefit of PLM mobility. More traditional processes include taking a picture, uploading the picture to a computer, logging into the PLM system and uploading the graphic file, and sometimes waiting for batch cycles to run. Such processes are clearly less efficient.

Sample review, another visual process where designers and tech designers determine if the sample meets the specifications, is another PLM mobility application opportunity. Designers can capture design changes with photos, markups, video or audio during review meetings and then communicate changes instantaneously back to suppliers. In addition, samples can be monitored with a tracking ID that is scanned each time they reach their destination (shipped, received, sample review) and the sample status is immediately updated in the PLM system.

Improved Communication & Responsiveness

With the ability to update and access data from anywhere and anytime, cross-functional teams and suppliers can communicate and collaborate more effectively based on the most up-to-date information. The appropriate teams can be notified immediately and decisions made on the spot to accelerate the product development process. Business intelligence and dashboard access are key PLM drivers and now available from tablets and smart phones.

As an example, say a sourcing manager visits a supplier in Asia for cost negotiations, and the supplier offers reduced cost options if the style is made in different materials. In this example, the sourcing manager uses their mobile device to immediately update the cost options with the new materials and/or upload pictures of the new materials to see the effect on the estimated landed cost. The product development team can view and discuss the proposed changes and agree to the modifications while the sourcing manager is still at the factory. The impact on margins, ship dates, and assortment are visible to the entire mobile enabled work force and headquarters.

Reduced Costs & Increased Sales

By increasing functionality and improving communication, mobile PLM applications help reduce costs and increase sales. When product development processes are more efficient and therefore faster, cycle time from concept to store is reduced. Retailers can respond quickly to trends so the assortment is current and fresh for consumers, which ultimately gives retailers a better chance of designing products consumers want to purchase. Designers can capture last minute style updates through their mobile application and have the changes reflected immediately in the PLM system

and the look books presented to buyers. Decisions can be made on the most accurate data resulting in fewer product modifications and samples developed.

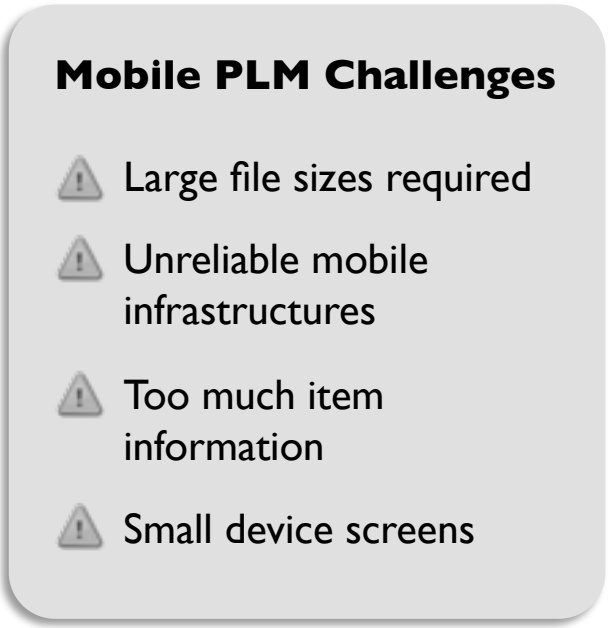
Increased Productivity & More Flexibility

With mobile PLM technology, employees can work remotely, globally, in the field, or in the office from the conference or sample room. They are no longer tied to the parameters defined by the “nine to five” job. With the added flexibility of working from home, hotels, coffee shops, airports, the factory floor, the streets of Milan, or at the fabric mill, employees can communicate, collaborate and work with each other and with external partners more fluidly and frequently, no matter where they are located or the time of day.

Product development executives and teams spend long hours traveling back and forth across continents to research new trends, attend industry trade shows, evaluate product samples and manage suppliers and contracts throughout each season. They need the ability to access corporate data when and wherever they are to make informed decisions. Most PLM applications offer some form of workflow and alerting – by enabling these capabilities on mobile devices, a quick response to notifications and exception alerts is possible. The ability to have the person traveling react instantly instead of waiting until they are “back in the office” buys precious time. With the ability to access data in real-time, decisions are made quickly and bottlenecks associated with the approval process are eliminated.

Challenges of Mobile PLM

While there are many benefits to mobile PLM, it also poses several challenges. Mobile device providers continue to improve the mobile device video displays through larger screens and the ability to display high-definition pictures in their attempt to mimic the computer experience. These graphics and other large files take up large amounts of memory, coupled with the infrastructure in some locales that may not have the bandwidth to transmit these images. Until high-speed networks are available everywhere, this will continue to be an issue.



Additionally, many PLM applications have an abundance of information to offer on a company's products. Software providers need to develop their mobile solutions with this in mind and try not to deliver all the information available but only the information needed for the task at hand (e.g., cost negotiation). Thus, information delivered at any point in time is either driven by user-defined parameters, role-based security or the specific business function in order to minimize the amount of bandwidth needed.

The mobile platform also needs to take into account the smaller screens that mobile devices offer versus a computer. PLM applications tend to have a great deal of data on each screen. As a result of this large amount of data, even when using a computer, there can be a great deal of scrolling or navigation through multiple tabs to view all the information. With the smaller screens, the software providers need to keep this in mind when developing their mobile solution to enable efficient access to the data. It is not as simple as just porting the application from a computer browser to a mobile browser.

Final Word

PLM Mobility offers a new way of doing business. While traditional web-based PLM systems have improved the product development process, content creation, as well as critical milestone decisions and processes still occur outside the PLM system and outside the cubicle. As advances with mobile technology continue to improve, retailers can leverage these new capabilities and benefit from greater control of their data, people, processes and calendars. With mobile functionality and real time updates and sharing of data, PLM teams will make better and quicker decisions. While challenges still exist with this new PLM capability set, retailers that take advantage of mobile PLM will see superior benefits from faster and more efficient processes, ultimately leading to substantial bottom line improvements.

The Parker Avery Group

The Parker Avery Group is a boutique strategy and management consulting firm that is a trusted advisor to leading retail brands. We combine practical industry experience with proven consulting methodology to deliver measurable results. We specialize in merchandising, supply chain and the omnichannel business model, integrating customer insights and the digital retail experience with strategy and operational improvements. Parker Avery helps clients develop enhanced business strategies, design improved processes and execute global business models.

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