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Vision 2015

Focus Group Sessions

Summary Report

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1. Introduction

PMMI's Vision 2015 initiative focuses on achieving two interrelated objectives. First, major issues and trends that likely will define future characteristics of the packaging industry must be identified. Some of these factors might be forces of change external to the industry but have the capacity to greatly influence future or evolving opportunities and challenges in packaging. Other forces of potential industry change might be occurring in the industry at present or introduced to the industry by packaging machinery manufacturers, machinery customers, and end-users of machinery. The second objective of the Vision 2015 initiative is to identify strategy development and implementation implications derived from the assessment of packaging industry drivers. Stated differently, strategies and tactics of packaging machinery manufacturers must be aligned with and responsive to anticipated characteristics of the industry's future environment.

One place to begin research and planning processes needed to achieve the Vision 2015 initiative is to collect and analyze data from packaging machinery customers. Packaging machinery customers must – in order to be successful – understand and fulfill the expectations or requirements of the consumer or end-user markets they serve. Hence, machinery customers help to bring end-user and consumer perspectives into the Vision 2015 initiative. Second, machinery customers identify packaging machinery requirements – in response to their marketing, financial, and production strategies that create both significant opportunities and challenges for manufacturers. An understanding of customer objectives, strategies, and requirements provide input needed for the development of “customer driven” responses by manufacturers.

To bring an initial set of machinery customer perspectives into the Vision 2015 process, seven Focus Groups were conducted at PackExpo Las Vegas from October 15-17, 2007. Over 100 targeted packaging professionals, representing large and small companies in the food, beverage, personal care, pharmaceutical, and other industries, participated in these 90-minute sessions. Results from these Vision 2015 Focus Groups represent only one but an important source of information that PMMI will incorporate in its Vision 2015 process. PMMI, on behalf of its members, gratefully acknowledges the time, effort, and expertise of those packaging professionals from key customer organizations who participated in the Vision 2015 Focus Group sessions.

Section 2 of this Summary Report presents an assessment of Major Trends and Issues while Section 3 highlights Implications for Packaging Manufacturer Strategy Development and Implementation.

2. Major Trends and Issues

This section summarizes Major Trends and Issues that, based upon packaging machinery customer input, will define important elements and characteristics of the packaging industry in the foreseeable future. Discussion items under each major trend or issue illustrate how machinery customers think about each trend in terms of scope, focus, and potential implications for machinery manufacturers. It should be pointed out that many of the packaging trends and related implications for manufacturers are interrelated and some redundancy of thought and approach exists. Additionally, trends and issues given here should be affirmed or challenged by input from other sources. Finally, Focus Group results provide highly valuable qualitative insights that can be further specified or corroborated upon by statistical data.

The following topical items are major packaging industry trends and issues identified by Vision 2015 Focus Group participants. All of these are regarded to be primary drivers of the packaging industry over the next several years and/or to represent major needs and expectations for the types of packaging machinery, technologies, and value-adding services that manufacturers should be prepared to offer in the future. Trends and issues summarized here were identified and supported by most Focus Group participants so a solid participant consensus is reflected in these assessments and all items are regarded to be equally important in terms of impacting the future of the packaging industry, reflecting customer expectations, or driving objectives-strategies of machinery manufacturers.

1. **Continuing product-brand-package proliferation, in response to changing customer requirements and consumer demands for convenience, will occur for the foreseeable future.**

Notable Quote

“My world is large volumes in short runs because it seems like we have to make every product everyday.”

- 1.1 Marketing strategies in machinery customer companies will continue to emphasize the development and delivery of numerous product-brand-package innovations that achieve goals in areas like: market share growth; margin growth; fulfillment of changing customer needs; and overall competitive advantage.
- 1.2 To enable customers to effectively manage “SKU proliferation,” manufacturers must focus on the development of machinery that is highly flexible or adaptable in nature so that change-over processes are highly efficient and relatively easy to execute (e.g., “toolless” changeover processes, modular designs, flexible automation, etc.).

- 1.3 It will be essential that manufacturers work closely with customers to understand the range of machinery applications and types of innovative materials that are likely to drive future marketing and production strategies.
 - 1.4 Manufacturers must recognize that customers will require compressed timeframes from purchase to delivery; and adherence to strict delivery date requirements.
 - 1.5 Machine “flexibility” (including fast changeover processes and capacity to handle innovative materials and containers) will be a more important attribute than machine “speed” for many customers.
 - 1.6 Customers feel that attributes found in traditional packaging machinery – engineered for long-runs, built to “last forever,” and labor intensive for operations, maintenance, and cleaning – is not consistent with contemporary requirements associated with high levels of product proliferation and shortened product life cycles.
2. **An increasing strategy and operational emphasis on sustainability in packaging, materials, and operations is being driven by customer requirements and consumer “green movement” sensitivities.**

Notable Quote

“Sustainability requires us to look at everything and manufacturers should do the same thing when they design and build machinery so that we can achieve our sustainability goals in operations, energy, materials, workforce utilization, etc.”

- 2.1 It is anticipated that sustainability focused strategies in customer organizations will accelerate rapidly and, potentially sustainability could be a potential “game changer” in packaging.
- 2.2 The scope of sustainability is broad and multifaceted as “measurement and accountability” occur in areas like: electricity usage; tons of waste; cost savings in materials-processes; water usage; and overall carbon footprint profiles.
- 2.3 As customers drive sustainability into their vendor relationships, machinery customers will begin to focus sustainability requirements on their packaging machinery suppliers.
- 2.4 Sustainability likely will require that manufacturers create substantially new machinery or technologies rather than “tweaking” current generation equipment.
- 2.5 Machinery manufacturers will be challenged to create new machinery that can perform key packaging functions using new, light weight materials that will be incorporated into innovative package designs within a sustainability framework.
- 2.6 While consumers are likely to “accept” lighter weight and non-traditional packages (e.g., a 1-pound bottle replaced by a semi-rigid 1-pound pouch) for many products will be unlikely to “pay more” for environmentally friendly packages.

3. **Machinery customers are challenged to attract and retain a workforce – at operator, technician, and mechanic levels – with skill sets needed to operate increasingly sophisticated packaging machinery.**

Notable Quote

“We need sophisticated technologies and automation to make machinery operation and maintenance as simple as possible.”

- 3.1 Workforce quality in machinery customer production facilities have, if anything, continued to erode in recent years and are not likely to improve in the foreseeable future.
- 3.2 Manufacturers must recognize that “over-engineering” a machine (in terms of design and mechanical-electrical components) can cause complexities that exceed the skill sets of many operators and mechanics and, as a result, undermine the value of machinery to customers.
- 3.3 **This situation will result in customer companies placing increasing demands on manufacturers in three principal areas:**
- **Automation processes to reduce manpower needs in operations, maintenance, cleaning, etc. (e.g., simple operator controls, e-machines, etc.);**
 - **Operator-mechanic training programs to raise skill sets to acceptable levels (e.g., at installation and on a continuing basis); and**
 - **Innovative service strategies (e.g., scheduled or preventive maintenance, etc.).**
- 3.4 Technological advances that enable customers and manufacturers to detect and mitigate potential breakdowns or maintenance issues provide a significant value-add for many customers.
- 3.5 Manufacturers can create significant value for their customers and competitive differential in the marketplace by making real commitments to operator and mechanic training (e.g., placing qualified trainers in customer plants; bringing operators and mechanics to manufacturer facilities; employing personnel who are qualified trainers; etc.).
4. **Packaging machinery customers are not, in many instances, able to obtain capital needed to purchase innovative packaging machinery needed to meet production and marketing objectives.**

Notable Quote

“We need flexible machines because we don’t know what we will be making in 2 years or, for that matter, tomorrow.”

- 4.1 Capital for the purchase of new machinery is available when customer companies consolidate their production operations or bring companies they acquire in mergers to desired levels of productivity.
 - 4.2 Machinery customers will reward manufacturers who focus on adaptations, modifications, and retrofits of existing machinery to “stretch” available capital by prolonging machinery life cycles and improving flexibility.
 - 4.3 Machinery manufacturers should expect their customers to be very return-on-investment oriented and, as a result, pricing pressures will continue though total cost-of-ownership data can be used to offset purchase price sensitivities.
 - 4.4 Customers will clearly focus on high levels of machine speed, reliability, flexibility, etc. in their decision-making processes and must be assured that FAT levels of performance can be achieved in production “real world” facilities.
 - 4.5 The development of strong customer-manufacturer relationships will be essential if requirements of customers are to be understood and fulfilled in a consistent manner.
5. **Machinery customers continue to be frustrated by the low level of effectiveness in post-sales or technical support strategies of manufacturers in areas like operator training, machinery breakdowns, poor or inconsistent machinery performance, and documentation.**

Notable Quote

“I can’t stand it when an underqualified, overpaid OEM tech support guy shows up and says: ‘Let’s try this and see what happens’.”

- 5.1 While unanticipated machinery breakdowns can occur, it will be increasingly important for manufacturers to design and build machinery to levels of quality mandated by customer technical specifications and at a price point that maximizes return-on-investment value.
- 5.2 Manufacturers must be prepared to acknowledge that planned or forecasted machinery performance levels will, in many instances, not be achieved in customer facilities; and work with customers to address factors that “cause” this circumstance (recognizing that poor or inconsistent machinery performance can be caused by factors attributable to conditions caused by both manufacturers and customers).
- 5.3 A pivotal issue in post-sales support strategies of manufacturers focuses on spare parts costs, inventory costs and responsibility, and quality of replacement parts and components.
- 5.4 Sufficient and relevant machinery documentation is a clear expectation of customers though the performance of many machinery manufacturers in providing adequate documentation is viewed to be inadequate in too many instances.
- 5.5 “Value-adding” services represents a way for U.S. manufacturers to effectively compete in the global machinery marketplace and to help offset customer preoccupations with “low price” on their decision-making processes.

6. **Customers continue to place emphasis and value on “packaging solutions” and expect machinery manufacturers to employ line integration approaches to fulfill these requirements.**

Notable Quote

“OEM’s are more interested in selling new machines than fulfilling our needs by upgrading and retrofitting existing machines or initiating line integration approaches.”

- 6.1 Machinery customers, increasingly, seek a “single source solution” from manufacturers vis-à-vis just “selling packaging a piece of packaging” machinery.
- 6.2 To act in this manner, manufacturers must clearly understand the objectives, strategies, and operations of their customers; and take the initiative to identify and build relationships with potential partnering manufacturers.
- 6.3 Line integration, offered in a “proactive” manner to provide solutions addressing key “problems” or priority operational-marketing initiatives in customer organizations, will become core strategy elements of successful manufacturers in the future.
- 6.4 In situations where line integration leadership is not the direct responsibility of manufacturers, customers will expect that manufacturers clearly understand their machinery interfaces with other machinery or systems in packaging lines.

7. **A global emphasis on worldwide product production and sourcing of packaging machinery continues to occur as customers continue to seek extended marketplace opportunities and achieve competitive advantages through low-cost producer strategies.**

Notable Quote

“European manufacturers used to be arrogant. Now, the Americans are arrogant.”

- 7.1 U.S. packaging manufacturers operate in a global competitive environment and many customers will source and use machinery on a worldwide basis.
- 7.2 Customers continue to believe that European manufacturers produce machinery (across design, quality, speed, safety, changeover attributes) that is capable of fulfilling changing marketplace needs in a cost-effective manner.
 - European manufacturers, overall, are viewed to be very customer-focused in their outlook and highly motivated to provide machinery aligned with customer needs.
 - In some instances, customers will source machinery in Europe because U.S. manufacturers do not or will not produce desired machinery.
 - European manufacturers continue to be perceived by some customers as not having a strong U.S. presence in post-sales technical support services, spare parts, etc.

- The exchange rate differential between the U.S. dollar and the Euro will create, all things equal, a competitive disadvantage for European manufacturers.
- 7.3 To successfully compete with European manufacturers, U.S. machinery manufacturers must embrace several clear-cut strategies: (1) remain or become very customer focused in overall approach to the marketplace; (b) readily accept the challenge of innovation by offering solutions and machinery that are clearly aligned with customer needs; (c) place a premium on flexibility and safety in machinery design and construction; (d) emphasize fairly priced and well executed post-sales technical support and service strategies; and (e) capitalize on currency differentials by pursuing export opportunities and using aggressive pricing tactics to gain market share in the U.S. marketplace.
- 7.4 Customers strongly believe that China will become a major or dominant player in the global packaging industry over the next several years.
- China, primarily because of its low labor cost structure and permissive governmental policies, will be an increasingly important exporter of packaging machinery, machinery components, materials, and end-product ingredients or finished goods.
 - The packaging machinery industry in China will continue to produce low-cost/low-end machinery and components but Chinese manufacturers are improving the overall quality, sophistication, and functionality of machinery they produce for export to the United States.
 - U.S. trade policy, concerns about product safety, violations of intellectual property rights, counterfeiting, etc. are major issues that will affect the growth rate and position of Chinese produced packaging machinery in the worldwide market.
 - The evolving Chinese consumer and end-user market will attract machinery customers who seek to serve these markets; and who will stimulate the development of packaging industry growth and strength in China.
- 7.5 Recognizing that some U.S. manufacturers have a presence in China (usually structured in some form of alliance model), it will be imperative that virtually all U.S. manufacturers have a viable “China strategy” in the near-term planning horizon.
8. **Customers would welcome the development of sound relationships with manufacturers to exchange information, share risk, and facilitate development of innovations.**

Notable Quote

“OEM’s need to deliver what they promise when they promised it so we can meet our goals and schedules.”

- 8.1 The evolving packaging industry will contain escalating levels financial and other types of “risk.”

- Machinery customers accept financial and marketplace risk when they develop an increasing array of innovative products, brands, and packages that may or may not fulfill the expectations of consumers.
 - Machinery manufacturers accept financial and marketplace risk when they invest in innovative packaging machinery and technologies to serve changing customer requirements and achieve competitive advantage.
 - In an environment featuring increasing levels of regulations, standards, and litigation, both machinery customers and manufacturers face significant risks associated with regulatory compliance.
- 8.2 To manage such risks in an effective fashion, customers will welcome opportunities to build strong, trustworthy, and credible relationships with their machinery vendors to create “joint solutions” to “difficult problems.”
- This philosophy or approach will require that customers abandon purchasing strategies that are based only or mostly on competitive bidding processes featuring unrealistic specifications combined with low vendor price requirements as the major selection criterion (the antithesis of a true partnering strategy in which the sharing of information needed to define realistic solutions is paramount).
 - Machinery manufacturers, in turn, must be completely honest with their customers about their ability (independently or through integration strategies with other manufacturers) to fulfill customer needs by providing a cost-effective solution.
- 8.3 In a partnering approach, customers and manufacturers would work together to: (a) properly identify realistic packaging machinery or line objectives within the context of the customer’s facilities, workforce, etc.; and (b) jointly agree on the type and cost of solutions needed to achieve such objectives.
- 8.4 In situations where innovation is needed for success in a highly competitive environment and the process of innovation produces risk of failure or poor performance, collective solutions – based upon trust, dialogue, and information – provide a way forward if customers and manufacturers are able to change their traditional approaches when dealing with each other so that “win-win” consequences result.
9. **Risk assessment, focusing on all aspects of safety in machinery design and operation, represents a core or essential requirement of customers.**

Notable Quote

“Machine safety is not discretionary or optional ... it is an essential requirement that we demand and expect.”

- 9.1 Safety, in many customer companies, is an important corporate value or element of corporate culture that permeates virtually all aspects of facilities, processes and operations, and equipment-machinery as Enterprise Risk Management (ERM) processes are implemented.

- 9.2 Hence, it is not surprising the risk assessment or management strategies applied when packaging machinery is purchased and operated, are being implemented to achieve the highest levels of safe machine operation.
- 9.3 While voluntary and mandatory machine standards exist and continue to evolve, customers particularly value those manufacturers who both comply with and go beyond such standards (those manufacturers with the highest degree of commitment to machine safety).
- 9.4 Manufacturers, as a result, must emphasize and incorporate safety into all aspects of the value proposition offered to customers: machinery design; machinery operation; machinery maintenance-repairs; machine documentation; and operator training.
10. **Particularly in regulated industries (pharmaceuticals and foods in some categories), requirements for product-package traceability across all components of the supply chain.**

Notable Quote

“Traceability will cost money and require that data be collected from all supply chain components: raw material procurement, processing and packaging, and distribution to the consumer.”

- 10.1 Governmental policies requiring more intensive product traceability requirements (for example, the new California regulation to be implemented in 2009) will become a dominant issue affecting machinery manufacturers and customers for several reasons: (a) global sourcing of product ingredients and finished goods; (b) increased export and import activity involving both developed and developing countries; (c) health, disease, and bioterrorism concerns; and (d) public support for enhanced regulation in response to well-publicized incidents affecting product security and safety.
- 10.2 The focus of enhanced traceability regulation will hold product producers accountable for coding or identifying individual products so that traceability is possible at all levels of the supply chain.
- 10.3 Traceability, as a result, will be a major technology challenge at two levels: (a) product identification during production and packaging; and (b) data management to collect and organize massive amounts of information generated as individual products are traced in the supply chain.
- 10.4 Hence, the costs of complying with evolving traceability regulations will be substantive and place added cost or margin pressures on pharmaceutical and food category machinery customer who, in turn, will escalate their demands for processing and purchasing technologies that yield compliance at the lowest possible cost.
- 10.5 The preceding scenario suggests that information technology companies, materials-container suppliers, processing equipment manufacturers, packaging machinery manufacturers, and producers will need to work closely together to create joint solutions to successfully address interrelated or systemic issues in traceability applications.

3. Packaging Manufacturer Strategy Development and Implementation

Trends, issues, and related discussion points given in Section 2 highlight key drivers and the constancy of change in the packaging industry.

- Customers need new types of packaging machinery, technologies, and materials in response to innovative marketing strategies, product-brand-package proliferation, and requirements for increased production and lower costs.
- “Sustainability” is viewed to be a rapidly accelerating mandate and strategy tool in customer companies based upon customer requirements and increasing consumer preference or demand.
- Workforce quality issues provide major challenges for customer and influence their packaging machinery specifications and purchase processes.
- Many customers operate in a capital constrained environment which impacts the frequency and types of new machinery they purchase and their expectations for rebuilt-retrofit services offered by manufacturers.
- Customers continue to believe that manufacturers must provide exemplary post-sales technical support and other services to ensure high degrees of satisfaction, build repeat business loyalty, and to ensure adequate or planned levels of machine performance.
- A “single source solution” focus is a winning strategy for many customers which puts a continuing emphasis of line integration skill sets on manufacturers.
- The packaging industry remains a highly globalized industry and a world view is incorporated into the marketing strategies and machinery procurement strategies of many customers.
- Customers want to work closely with their packaging machinery and technology providers to reduce risk by ensuring that their needs, expectations, and requirements are communicated to and fulfilled by manufacturers.
- Manufacturers must share in the belief of their customers that safety and other risks are addressed and managed in all aspects of design and production processes.
- While product integrity has been a long-term packaging requirement, customers in some categories anticipate that enhanced levels of product traceability will be required by regulators.

Against these strategic drivers, the following packaging manufacturer strategy development and implementation imperatives emerged from customer input generated in the Vision 2015 Focus Groups. These are not placed in any particular order of importance.

1. **U.S. packaging machinery manufacturers must develop and implement offensive and defensive strategies on both a domestic and global market basis, to serve current and potential customers better than European and Chinese competitors.**
 - Capitalize on competitive strengths available to U.S. manufacturers in serving customers in the domestic marketplace (e.g., “total solutions” focus in machinery design with an emphasis on workforce, sustainability, and value-adding post-sales support services).
 - Capitalize on weaknesses of European and Chinese manufacturers in serving customers in the domestic market (e.g., use “currency differentials” to drive pricing and total cost of ownership strategies; emphasize language and time barriers in communications; provide value-adding support services).
 - Structure, through alliances-joint ventures or organic resources, strategies to compete in machinery exports markets in order to serve customers with facilities worldwide.
2. **U.S. packaging machinery manufacturers must become “intimate” with customers to understand their strategies and requirements for packaging solutions.**
 - Emphasize attributes like flexibility, safety, sustainability in machine design and development.
 - Create innovation through organic processes or partnering with customers and competitors.
 - Focus on pricing strategies that emphasize short- and long-term customer returns on invested capital and total cost of ownership.
3. **U.S. machinery manufacturers should adopt a “total product” approach by “adding value” to all aspects of their interface with customers.**
 - Help customers to understand their requirements and responsibilities in supporting the design and operation of machinery at desired levels of performance.
 - Create and use modular designs and post-sales service and support strategies to build sales and customer loyalty.
 - Recognize that customers are highly focused on workforce quality issues and address this need.

4. **U.S. machinery manufacturers build a strong sustainability platform in their machines targeted to helping customers achieve their objectives.**
 - Focus on machine designs that can manage new or lighter weight materials and unique package designs.
 - Ensure that machinery use of water, air, energy, etc. is constrained and that machines are operator friendly.
 - Use modular designs to facilitate machine flexibility and changeover.
5. **U.S. manufacturers need to be brutally realistic when calculating and communicating packaging machinery performance data.**
 - Willingly tweak and modify machines in customer plant locations to achieve forecasted importance.
 - Assess and communicate to customers impacts of operator quality, multiple shifts, facilities on machine performance.
 - Share “best practice” solutions generated in response to performance issues experienced by other customers.
6. **U.S. manufacturers must clearly meet or exceed mandated or voluntary standards and compliance requirements that affect machinery they produce for use by customers.**
 - Environmental policies, sustainability requirements, workplace regulations, etc. should be viewed as opportunities to add or assure customer value.
 - Machine safety and risk assessment, management, and mitigation are other areas where manufacturers can strengthen relationships with customers.
 - Work with customers and trade associations to help influence and advocate development of suitable standards and regulations.

In summary, a “customer driven” focus presents opportunities for manufacturers to align their objectives, strategies, and tactics with “marketplace realities” as perceived by customers. This is the essence of a core approach that will be needed to sustain current and build future levels of success and profitability.