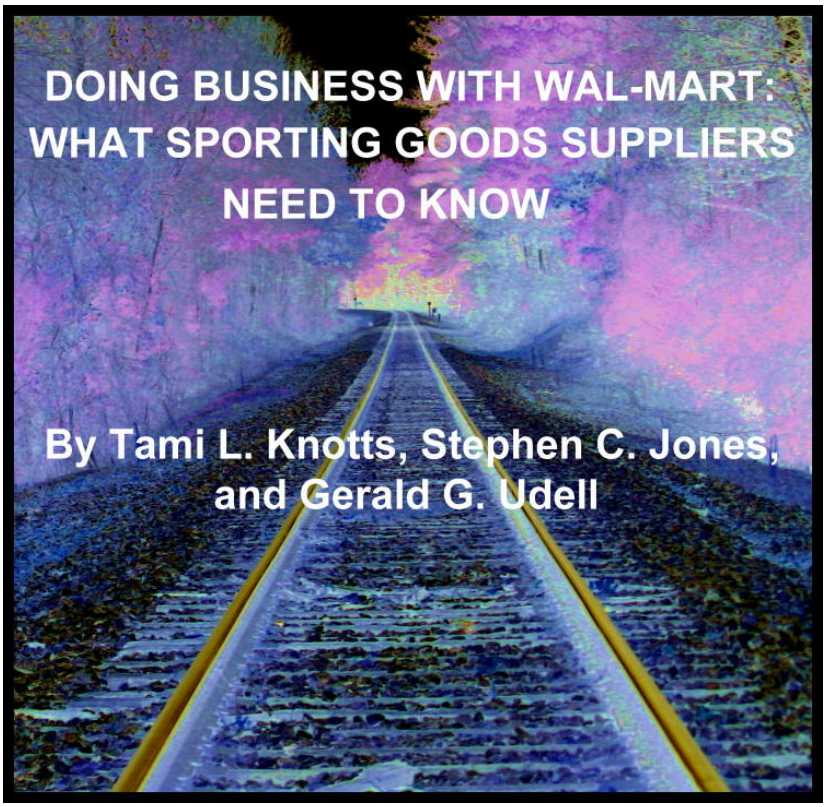

Peer Reviewed

Tami L. Knotts tamiknotts@missouristate.edu is an Associate Professor of Management, Missouri State University. Stephen C. Jones is an Assistant Professor of Management, Arkansas Tech University. Gerald G. Udell is the Director of the Center of Business and Economic Development, Missouri State University.

Abstract

Becoming a Wal-Mart supplier is not easy, especially for smaller firms. This paper explores the critical factors for small sporting goods manufacturers who want to be mass merchandising suppliers. Using results from a supplier screening program, we find that product/market risk (e.g.— payback period, investment costs), market readiness (e.g.— market demand and acceptance), and management experience in key functional areas are the factors that satisfy the most basic qualities that Wal-Mart and similar mass retailers demand. Successful firms in this study: those sent on to Wal-Mart for buyer review, had products that were less risky, less dependent on marketing, and more competitive in the marketplace than their unsuccessful counterparts.

Introduction

"Power retailers" are a dominant force in the retail industry due to their large market share, low prices, and distribution capabilities (Raju and Zhang 2005). These power retailers are typically classified as category killers, such as Home Depot, or non-category killers, such as Wal-Mart. While category killers focus on a large selection of specialized products for a single market segment, non-category killers or mass merchandisers offer their customers a one-stop shopping experience with a variety of general products at low prices (Rogers 1996).

As the largest retailer in the world, Wal-Mart has demonstrated the impact that non-category killers can have on the mass retail environment. With sales of more than $310 billion (www.moneycentral.msn.com 2006) and a growth rate of 10 percent (2002-2006), the Bureau of Economic Analysis report shows that Wal-Mart's total revenues accounted for more than 2.5 percent of the U.S. gross domestic product in 2006 (www.bea.gov). Wal-Mart's dominance, according to Fishman (2006), has changed the way that we do business and the way that we live, both domestically and globally. Better known as "the Wal-Mart effect," the consequences of Wal-Mart can be both positive and negative. A good example of this is the consumer-supplier relationship that Wal-Mart manages. While consumers enjoy "everyday" low prices, it is often at the expense of smaller profit margins for suppliers (Fishman 2006). Those same suppliers, however, benefit from the large purchase orders and promotional support that a mass merchandiser like Wal-Mart can provide. The relationship between Wal-Mart and its suppliers is summed up best by Fishman (2003) who said, "for many suppliers, the only thing worse than doing business with Wal-Mart may be not doing business with Wal-Mart."

Becoming a Wal-Mart supplier is not easy, especially for smaller firms. According to Wal-Mart executives, small manufacturers have about a 1 in 300 chance of actually getting their product reviewed and on-shelf at the retail giant because Wal-Mart buyers may not see the need to invest time in small ventures when they already have established relationships with larger ones (Udell, Atehortua and Parker 1995). Therefore, this paper explores the critical factors for small manufacturers who want to be mass merchandising suppliers. In particular, we examine the results of a screening program that evaluated the management practices and products of small sporting goods firms attempting to supply Wal-Mart. We begin with a discussion of Wal-Mart and its impact on consumers. Next, we focus on Wal-Mart's effect on suppliers, particularly sporting goods manufacturers. Finally, we provide an explanation of the screening program, followed by our results and conclusions.

Consumers and the Wal-Mart Effect

Wal-Mart sets the standard in terms of customer convenience and low prices. With almost 3,900 stores in the United States, shopping at the retail giant has become a ritual for the majority of American consumers. Wal-Mart is only ten minutes away from home for over fifty percent of consumers, and nearly every American lives within a

fifteen mile radius of a Wal-Mart store (Fishman 2006). Since its inception, Wal-Mart's focus has always been on saving the customer money by offering lower prices on everyday items. For example, Fishman (2006) calculated that American shoppers saved approximately 22 billion dollars in 2004 by buying groceries at Wal-Mart rather than other supermarkets. He also suggested that consumers who purchased non-grocery merchandise at Wal-Mart saved another $8 billion, bringing the total savings for Wal-Mart shoppers in 2004 to 30 billion dollars.

Although Wal-Mart shoppers are saving money, their perceptions of the retail giant are not always positive. A recent study by Shapiro and Foote, Cone, & Belding (2003) categorized Wal-Mart shoppers into four types based on their attitudes toward the company (positive to negative): champions, enthusiasts, conflicted, and rejecters. As expected, Wal-Mart's strongest supporters, "champion" shoppers, visited the store most often (2 times per week) and spent the most money ($400 per month) compared to the other types. However, the next strongest customer segment was the "conflicted" shoppers, who actually had a negative view of Wal-Mart. These "conflicted" shoppers visited the store six times more often than Wal-Mart "enthusiasts" and spent three times more money. The most negative consumers toward Wal-Mart, the "rejecters," visited the store at least five times per year and spent almost $500. The findings of this study demonstrate the power that Wal-Mart has over its consumers, in that many of them do not even like the company but shop there anyway. This type of customer loyalty makes Wal-Mart an attractive and almost irresistible market for suppliers wanting to get their products in the hands of the largest number of consumers.

Suppliers and the Wal-Mart Effect

Supplying Wal-Mart can have its advantages. Companies must become more efficient and effective in their production processes in order to provide Wal-Mart with the quantities and delivery schedule that it demands. Known for their world-class inventory tracking system and focus on continuous improvement, Wal-Mart holds suppliers to similar standards by encouraging them to lower their price for basic goods year after year. This type of pressure forces manufacturers to either engage in foreign outsourcing or to improve their operations to meet Wal-Mart's high expectations. For example, Levi Strauss Company restructured its entire organization in order to establish a relationship with Wal-Mart. The jeans company updated its information systems, ramped up its production levels, and increased its delivery time in order to qualify as a Wal-Mart supplier and hopefully rejuvenate its declining sales (Fishman 2003).

Being a Wal-Mart supplier can also have its disadvantages. Suppliers may become over-reliant on Wal-Mart for sales, devoting too much of their production capacity to the mass merchandiser. If this happens, manufacturers become easy targets for the difficult production demands or price concessions that the company is known for. This is already the case for many companies. For a variety of product categories, Wal-Mart accounts for 30 percent or more of national sales, including health and beauty, housewares, toys, and office supplies (Fishman 2006). In the sporting

goods industry alone, Wal-Mart accounts for 32 percent of these sales. The next seven competitors combined accounted for only 21.9 percent of industry sales (www.hoovers.com 2007). One particular sporting goods supplier, Huffy Bicycle, experienced first-hand the importance of Wal-Mart's business and the pressure that Wal-Mart can place on suppliers. One year Huffy designed a low-end bicycle for Wal-Mart and committed to provide the mass merchandiser with as many as it needed. Eventually, demand doubled supply, and Huffy had to make a decision about the value of their supplier relationship with Wal-Mart. Huffy executives decided to fulfill their low-end bicycle promise to Wal-Mart by giving their competition the production rights to their higher-end models. Profits were lost, but the relationship between Huffy and Wal-Mart remains strong (Fishman 2003).

The focus of our paper is on small sporting goods suppliers and the factors that are necessary for them to become Wal-Mart suppliers. Using the results of a mass merchandising screening program, we identify critical success and failure factors for sporting goods manufacturers trying to enter this mass retail market. Success for these manufacturers meant getting their product reviewed by Wal-Mart, which can be difficult for small firms (Udell et al. 1995). Failure for these manufacturers meant rejection or not being sent to Wal-Mart buyers for review. The program is explained in the next section.

Program Background

The sample firms for this study were small manufacturers who participated in a mass merchandising screening program developed at a regional Midwest university. The screening program consisted of two assessments: an external review of the firm's submitted product and a self-appraisal of the firm's management practices. For the purpose of this paper, only the product evaluation measure will be examined. Specific items can be found in the Appendix. Each product was either rejected from the program or sent on to the mass merchandiser for buyer review based upon the results of these evaluations. The final decision as to whether the forwarded product was placed on-shelf was left entirely to the retailer.

All of the participating firms were independently-owned manufacturers who wanted to be suppliers for Wal-Mart. Out of 2113 potential suppliers, 1690 firms (80.0 percent) completed the evaluation process. Of these, 255 manufacturers represented the sporting goods industry. These participants were from all states, and none were dominant in the industry. Sporting goods products ranged in suggested retail price from inexpensive and/or point-of-purchase to major purchase levels. No racial, ethnic, or other minority data were kept as part of the main database.

Product evaluation

The product evaluation instrument consisted of 41 items based on the Product Innovation Evaluation System (PIES) developed at the University of Oregon (Udell, O'Neill, and Baker 1977). Product areas included societal impact, business risk,

demand analysis, market acceptance, competitive capabilities, and experience and strategy. An independent, trained evaluator completed this portion of the assessment process. The independent evaluator was typically a current or former retail buyer or an experienced small firm owner with a retail background whose role was to assess the mass market potential of the product.

Products were judged on a five-point ordinal scale using specific achievement levels rather than a sliding subjective scale. The three-point (or middle) response was the minimum performance level acceptable to retail buyers. The independent evaluators rated each product using items like the one below:

> ***Functional Feasibility***. In terms of its intended functions, will it do what it is intended to do? This product:
>
> (1) is not sound; cannot be made to work.
> (2) won't work now, but might be modified.
> (3) will work, but major changes might be needed.
> (4) will work, but minor changes might be needed.
> (5) will work; no changes necessary.

Methodology and Results

There were 255 manufacturers in the sporting goods market that proposed to become suppliers for Wal-Mart by participating in this program. Of these, 194 (76.1 percent) were independently judged to be unsuitable suppliers while 61 (23.9 percent) were successful in being forwarded on for buyer examination. Of these, 8 firms (3.1 percent of the original group) were ultimately successful in making it to the mass merchandiser's shelves. Reasons for denial of a forwarded firm's product included market need for the product and other retailer specific issues, rather than actual inferiorities in the firm or the product. Because this last group was too small for statistical testing, we used the initial decision level (forwarded or not forwarded to buyers) for our study.

The main statistical methods used for this study were exploratory factor analysis and independent t-tests. Exploratory factor analysis is used to develop a sense of the main factors used by subjects (in this case the independent evaluators) in making critical decisions. In the absence of established theoretical factors (which would require the use of confirmatory factor analysis), this method helps the research team to determine which items in the instrument combined with others to explain the variance observed in the decisions made by subjects. In this study, we were first interested in determining which factors were critical to evaluators in deciding which firms and their products were suitable for Wal-Mart's buyers to examine. Tables 1 and 2 (below) show the results of our factor analysis. Each table includes the determined factors; the instrument items which created them; the factor's variance explained; and the total variance explained by all factors to that point. Although each analysis generated at

least ten factors using all instrument items, factors beyond the point of explaining a total of 50 percent of variation were discarded for this study.

We first looked at firms whose products were judged unacceptable for further review by buyers. Table 1 (See next page.) shows the results of this analysis. Product/market risk explained the largest amount of variance (11.1 percent) for these firms. The amount of effort for the firm (and ultimately the retailer) in making these products accessible and in-demand for consumers was judged to be the most important reason for denying these products further review. Products with long payback periods, higher than acceptable investment and research and development costs, immature commercialization development, and low profitability were deemed too risky for further buyer interest. Other factors were those indicating poor management experience in critical functional areas, poor market demand potential, market entry difficulty, and poor customer fulfillment, marketing savvy, and overall acceptance in the marketplace. These critical factors accounted for a total of 51.4 percent of the evaluators' decision making criteria variance.

Table One
Exploratory Factor Analysis for Not Forwarded Firms

Factor	Analysis Items	% of Variance	Total % of Variance
1. Product/Market Risk	Payback Period, Investment Costs, Research & Development, Distribution, Commercialization Stage, Profitability	11.1	11.1
2. Management Breadth	Management/Production Experience, Technical Experience, Marketing Research, Use Pattern Compatibility, Durability, Marketing Experience	8.3	19.4
3. Market Demand	Potential Sales, New Venture, Potential Market, Trend of Demand, Technology Transfer	7.0	26.4
4. Market Entry	Legality, Functional Feasibility	6.6	33.0
5. Market Fulfillment	Need, Financial Experience & Resources, Stability of Demand, Function, Production Feasibility	6.4	39.4
6. Marketing Savvy	Promotional Requirements, Sales/Selling Price, Promotion	6.1	45.5
7. Market Impact and Product Acceptance	Safety, Societal Impact, Service, Environmental Impact, Learning	5.9	51.4

Next we examined the factors for firms whose products were judged worthy of further buyer review. Table 2 (See next page.) shows the results of this analysis. As with non-forwarded firms, forwarded firms were most critically judged by the product/market risk associated with their acceptance on a mass merchandiser's shelves. A slightly lower percentage of total variance (10.6 percent) was accounted for by this factor. As before, evaluators judged these firms by the risk they posed to market entry, but these firms were found to have favorable potential and reduced risk by comparison. Management experience and marketing factors, while somewhat different in composition to the previous analysis, were the factors found to be of descending importance to evaluators. They still highlight the need for the firm to demonstrate effectively the firm's abilities to meet market demand and develop sufficient demand to sustain a long product life cycle. The total amount of variance explained by these critical factors was 51.4 percent.

Table Two
Exploratory Factor Analysis for Fowarded Firms

Factor	Analysis Items	% of Variance	Total % of Variance
1. Product/Market Risk	Payback Period, Investment Costs, Research & Development, Distribution, Commercialization Stage, Profitability	10.6	10.6
2. Management Breadth	Management/Production Experience, Technical Experience, Financial Experience & Resources, Product Line Potential, Marketing Experience, Protection	9.1	19.7
3. Market Demand	Potential Market, Potential Sales, Use Pattern Compatibility, Promotional Requirements	7.9	27.6
4. Marketing Savvy and Product Acceptance	Sales/Selling Price, Price (Competitive), Service, Safety, Learning, Visibility	7.6	35.2
5. Product Development	Dependence (Market), Technology Transfer	5.6	40.8
6. Market Entry	Functional Feasibility, Legality, Durability, Promotion	5.4	46.2
7. Market Impact	Environmental Impact, Societal Impact	5.2	51.4

The second method of analysis used for this study was an independent samples t-test. This test is used to determine if two separate groups perform differently on items in the analysis. Our two main groups, forwarded and not forwarded products, functioned as the separating variable. Each item was then analyzed to see if mean differences were significant between these two groups. Table 3 (below) shows the results of this analysis. Bolded items indicate which items were found to have significantly (or marginally significantly [$p<0.10$]) different mean responses for these firm groupings. We also tested the overall evaluator analysis items which judged the general health and readiness of the firms and products for Wal-Mart's system. These include the evaluator's assessment of the product's suggested market entry point (PREC) and readiness for Wal-Mart's system (PERA) as well as summary judgments of

the firm's and product's readiness to enter the general marketplace. These items were scored on a 1-to-3, a 1-to-5 or a 1-to-6 scale.

Of the 50 items analyzed in this series of tests, 16 were found to have no significant difference in evaluator assessment between forwarded and not forwarded products. The two groups of items accounting for eight of these variables were societal and experience and strategy. Societal items determine if a product is likely to encounter resistance in terms of market acceptance (e.g.—a product deemed unsafe due to lead paint), and experience and strategy items measure whether or not a firm is prepared to deal with the experience loads expected by Wal-Mart's system (e.g.—a firm with limited financial resources). The third group with a large number of non-significant differences (three of six items) was demand analysis. Demand analysis evaluates whether the market is stable, rich and long-term. The fourth group, market acceptance, had three of eight items with non-significant differences. Market acceptance determines how much marketing is necessary to convince consumers to use the product. These four groups accounted for the bulk of items found to show insignificant mean differences.

(See Table 3 on the next page.)

Table 3. Independent Means Tests on Product Evaluation Items					
Evaluation Items	**Forwarded Status [FWD]**	**N**	**Mean**	**Std. Dev.**	**P-Value**
Societal - Legality	Not Initially Forwarded	187	4.66	.559	NS
	Initially Forwarded	59	4.69	.500	
Societal - Safety	Not Initially Forwarded	186	3.89	.591	NS
	Initially Forwarded	59	3.93	.612	
Societal - Environmental Impact	Not Initially Forwarded	186	3.64	.503	NS
	Initially Forwarded	59	3.69	.534	
Societal - Societal Impact	Not Initially Forwarded	187	3.72	.484	NS
	Initially Forwarded	59	3.75	.512	
Business Risk - Functional Feasibility	Not Initially Forwarded	187	4.71	.457	0.05
	Initially Forwarded	59	4.83	.378	
Business Risk - Production Feasibility	Not Initially Forwarded	187	4.20	.588	0.10
	Initially Forwarded	59	4.36	.550	
Business Risk - Commercialization Stage	Not Initially Forwarded	187	4.10	.800	0.001
	Initially Forwarded	59	4.75	.439	
Business Risk - Investment Costs	Not Initially Forwarded	186	4.82	.995	0.001
	Initially Forwarded	58	5.41	.817	
Business Risk - Payback Period	Not Initially Forwarded	186	4.33	1.238	0.001
	Initially Forwarded	58	5.17	1.110	
Business Risk - Profitability	Not Initially Forwarded	187	3.97	.751	0.001
	Initially Forwarded	59	4.58	.563	
Business Risk - Marketing Research	Not Initially Forwarded	187	3.87	.663	0.01
	Initially Forwarded	59	4.12	.560	
Business Risk - Research & Development	Not Initially Forwarded	187	4.99	.927	0.001
	Initially Forwarded	59	5.51	.679	
Demand Analysis - Potential Market	Not Initially Forwarded	187	2.89	.900	NS
	Initially Forwarded	59	3.05	.936	
Demand Analysis - Potential Sales	Not Initially Forwarded	187	2.66	.769	NS
	Initially Forwarded	58	2.79	.695	
Demand Analysis - Trend of Demand	Not Initially Forwarded	187	3.34	.568	NS
	Initially Forwarded	59	3.44	.595	
Demand Analysis - Stability of Demand	Not Initially Forwarded	187	2.84	.616	0.01
	Initially Forwarded	59	3.05	.432	
Demand Analysis - Product Life Cycle	Not Initially Forwarded	187	2.52	1.114	0.05
	Initially Forwarded	59	2.93	1.172	
Demand Analysis - Product Line Potential	Not Initially Forwarded	187	2.36	.800	0.01
	Initially Forwarded	59	2.69	.793	

Table 3. Independent Means Tests on Product Evaluation Items (cont.)					
Evaluation Items	**Forwarded Status [FWD]**	**N**	**Mean**	**Std. Dev.**	**P-Value**
Market Acceptance - Use Pattern Compatibility	Not Initially Forwarded	187	3.26	.702	0.05
	Initially Forwarded	59	3.47	.704	
Market Acceptance - Learning	Not Initially Forwarded	187	3.65	.770	NS
	Initially Forwarded	59	3.69	.933	
Market Acceptance - Need	Not Initially Forwarded	187	2.62	.783	0.10
	Initially Forwarded	59	2.85	.784	
Market Acceptance - Dependence	Not Initially Forwarded	187	3.04	1.072	NS
	Initially Forwarded	59	3.00	1.017	
Market Acceptance - Visibility	Not Initially Forwarded	187	3.40	.779	0.05
	Initially Forwarded	59	3.66	.710	
Market Acceptance - Promotion	Not Initially Forwarded	187	3.04	.789	0.01
	Initially Forwarded	59	3.36	.663	
Market Acceptance - Distribution	Not Initially Forwarded	187	3.65	1.258	0.001
	Initially Forwarded	59	4.51	1.344	
Market Acceptance - Service	Not Initially Forwarded	187	4.95	1.023	NS
	Initially Forwarded	59	5.00	.965	
Competitive - Appearance	Not Initially Forwarded	186	3.19	.584	0.01
	Initially Forwarded	59	3.44	.565	
Competitive - Function	Not Initially Forwarded	187	3.30	.537	NS
	Initially Forwarded	59	3.37	.522	
Competitive - Durability	Not Initially Forwarded	187	3.56	1.005	0.05
	Initially Forwarded	59	3.27	.665	
Competitive - Price	Not Initially Forwarded	177	2.80	.756	0.05
	Initially Forwarded	59	3.07	.666	
Competitive - Existing Competition	Not Initially Forwarded	187	2.65	.974	0.05
	Initially Forwarded	59	2.90	.759	
Competitive - New Competition	Not Initially Forwarded	187	2.98	.711	0.10
	Initially Forwarded	59	3.17	.620	
Competitive - Protection	Not Initially Forwarded	186	2.62	1.298	NS
	Initially Forwarded	59	2.53	1.318	
Experience & Strategy - Technology Transfer	Not Initially Forwarded	186	1.92	.986	0.10
	Initially Forwarded	59	2.20	1.095	
Experience & Strategy - New Venture	Not Initially Forwarded	187	3.12	.605	0.05
	Initially Forwarded	59	3.31	.650	
Experience & Strategy - Marketing Experience	Not Initially Forwarded	186	2.92	.645	NS
	Initially Forwarded	59	3.02	.541	

Table 3. Independent Means Tests on Product Evaluation Items (cont.)					
Evaluation Items	**Forwarded Status [FWD]**	**N**	**Mean**	**Std. Dev.**	**P-Value**
Experience & Strategy - Technical Experience	Not Initially Forwarded	185	3.41	.583	NS
	Initially Forwarded	59	3.34	.576	
Experience & Strategy - Financial Experience & Resources	Not Initially Forwarded	185	2.97	.505	NS
	Initially Forwarded	59	2.98	.473	
Experience & Strategy - Management / Production Experience	Not Initially Forwarded	186	3.17	.464	NS
	Initially Forwarded	59	3.19	.508	
Experience & Strategy - Channels - Promotional Requirements	Not Initially Forwarded	177	3.23	1.278	0.001
	Initially Forwarded	57	4.63	.879	
Experience & Strategy - Channels - Sales / Selling Price	Not Initially Forwarded	178	2.76	1.189	0.001
	Initially Forwarded	55	4.53	1.016	
Venture Assessment - Production Capability	Not Initially Forwarded	178	2.84	.928	0.001
	Initially Forwarded	57	3.37	.975	
Venture Assessment - Product Quality Control	Not Initially Forwarded	187	3.20	.802	0.001
	Initially Forwarded	59	3.59	.768	
Venture Assessment - Marketing Capability	Not Initially Forwarded	187	2.53	.706	0.001
	Initially Forwarded	59	3.22	.645	
Venture Assessment - Engineering/Technical Capability	Not Initially Forwarded	178	3.01	.681	0.01
	Initially Forwarded	57	3.30	.654	
Venture Assessment - Financial Capability	Not Initially Forwarded	172	2.42	.879	0.001
	Initially Forwarded	59	3.05	.753	
PER Evaluator's Recommendation [PREC]	Not Initially Forwarded	180	2.79	.701	0.001
	Initially Forwarded	54	4.96	.272	
PER Evaluator's Readiness Assessment [PERA]	Not Initially Forwarded	180	2.17	.851	0.001
	Initially Forwarded	54	2.63	.487	
Summary - Venture Overall State of Readiness	Not Initially Forwarded	187	2.90	.833	0.001
	Initially Forwarded	59	3.64	.713	
Summary - Product Overall State of Readiness	Not Initially Forwarded	187	5.16	1.054	0.001
	Initially Forwarded	59	5.86	.507	

However, 34 of the 50 items did show significant mean differences between forwarded and non-forwarded products. In each case, forwarded products were judged to have superior position over non-forwarded products, with one exception: durability. Generally, forwarded products were those that presented less business risk (a higher number means a lower perceived business risk); had less need for extensive new marketing campaigns to persuade end-users; and showed a better competitive likelihood in the marketplace than their non-forwarded peers. They also seemed to come from firms which were better able to withstand marketplace pressures by virtue of having better established and prepared management teams (production, marketing, engineering, etc.). Finally, forwarded products were judged generally better prepared for Wal-Mart and the market in general by evaluators on summary items. While at times the mean differences may seem small, they show that, on average, forwarded firms were at least one level higher in preparation, function, attractiveness and the like versus their counterparts.

Discussion

This study used exploratory factor analysis to determine critical factors used by independent program evaluators in judging product viability for the mass retail market. While there were some notable differences in the factors and their underlying items, the overall picture is the same. Sporting goods manufacturing firms need to develop infrastructures and market demand potential for products which will make them attractive to retailers at the mass merchandising level. While all products may have some level of attractiveness to small and niche markets, mass retailers look for products which fulfill needs for a more general marketplace, and even more so they search for firms that can be counted on as stable and reliable suppliers for those products. Firms with interesting or unique products with small or niche markets should be wary of attempting to enter the mass market until a broader customer base is established.

Additionally, there were clear differences in the perceived quality of products which participated in this program. Forwarded products were those which, on the whole, were evaluated as having a better fit with consumers, the marketplace and Wal-Mart's system. Non-forwarded products were judged less viable in the competitive mass retail market (perhaps faulty functionality, unattractive packaging, unreasonably high retail prices, etc. were the culprit for many), and these products were never forwarded on for further evaluations.

However, it could be maintained that these analyses simply prove that the program did its job: it weeded out poorer products and promoted better products. In that case, our analyses would simply be reporting on the program's results, not on a viable method for determining whether or not a specific sporting goods product would survive on the mass retail market. Even if that were true, this system seems to have found a practical means of evaluating the market worthiness of retailed consumer goods. We began this analysis choosing forwarded status as our grouping variable because the percentage of forwarded products which actually made it to Wal-Mart's shelves was low. Even so, we did run the same summary variable t-tests comparing

rejected products (those not forwarded to Wal-Mart) and on-shelf products (forwarded products that Wal-Mart accepted). In each case, on-shelf products had been judged significantly better by evaluators in readiness and marketability than those which had not been forwarded on to buyers for review. That same difference was not seen, however, between forwarded products that made it on shelf at Wal-Mart and those that did not. Market factors seemed to weigh more heavily at the acceptance stage in determining which of the elite group was ultimately to be placed on-shelf.

Overall, evaluators for the sporting goods market held potential risk as the most critical factor in their determinations. Product/market risk, to the firm and to the retailer, is an important factor in that high levels of resource concentration and low levels of profitability lead to an unattractive retail prospect. High cost development and production costs also may point to ineffective and inefficient firm infrastructures, an indication of poor management practices. However, firms with moderately attractive risk but poorly developed markets and marketing experience will also find difficulty in entering this mass retail marketplace. Mass merchandisers like Wal-Mart do not market the products on their shelves. Instead, they focus on getting customers into their stores by advertising lower prices and product availability. Manufacturers are expected to market their own products and provide them to the retailer with consistent quality and reliability. Firms that cannot fulfill these responsibilities will not make it past buyers and their surrogates.

Conclusions

Several conclusions can be drawn from this study from a managerial perspective. Sporting goods manufacturers must minimize the risk associated with their products in order to increase mass merchandiser appeal. Mass retailers do not want to invest in an unproven product that has high risks or low profit potential. It is also evident that a great idea is not enough for mass merchandiser acceptance. For sporting goods suppliers, a quality product needs to be supported by a quality firm with management experience in key functional areas. Reassessment of management knowledge may be needed, particularly in small firms, where management positions may have been based on necessity rather than qualifications.

Market readiness (e.g., demand potential and acceptability to the customer) is another critical success factor for a product to enter the mass retail market. Wal-Mart and other mass merchandisers are not interested in developing market demand. They focus on taking advantage of an already cultivated consumer base. Sporting goods manufacturers who have not already created strong consumer acceptance will find little interest from these retailers in placing those unproven products on their shelves.

The final issue in this paper is whether small sporting goods manufacturers are willing to put forth the effort required to supply Wal-Mart. To be a supplier, the firm has to excel in multiple areas, such as marketing, management, and research and development, in order to meet Wal-Mart's production and price demands. While the product exposure of the retail giant is unmatched in the sporting goods industry

(accounting for 32 percent of sales, more than the next seven competitors combined), a manufacturer may still not obtain the profit margins necessary for survival. For that reason, small sporting goods manufacturers should understand the reality of doing business with Wal-Mart, including its expectations, critical evaluation factors, and acceptance rates. Although this study showed that about a quarter of the sporting goods firms were successful in getting their product reviewed by Wal-Mart, only eight of those (3%) made it on-shelf. This figure, which is better than the 1 in 300 rate cited earlier (Udell et al. 1995), is still lower than the overall acceptance rate for the entire sample of suppliers (5%) (Jones, Knotts and Udell 2003). Based on this information, small sporting goods manufacturers need to determine their proper distribution channel prior to pursuing the retail giant. Otherwise, a lot of valuable time and effort may be wasted if the rewards from doing business with Wal-Mart do not outweigh the risk.

Appendix: Product Evaluation Criteria (Original Instrument Items)	
Societal Impact	Legality Safety Environmental Impact Societal Impact
Business Risk	Functional Feasibility Production Feasibility Commercialization Stage Investment Costs Payback Period Profitability Marketing Research Research & Development
Demand Analysis	Potential Market Potential Sales Trend of Demand Stability of Demand Product Life Cycle Product Line Potential
Market Acceptance	Use Pattern Compatibility Learning Need Dependence Visibility Promotion Distribution Service
Competitive Capabilities	Appearance Function Durability Price Existing Competition New Competition Protection
Experience & Strategy	Technology Transfer New Venture Marketing Experience Technical Experience Financial Experience and Resources Management & Production Experience Channels: Promotional Requirements Channels: Sales & Selling Price

References

Financial highlights for Wal-Mart. (2006), http://www.moneycentral.msn.com.

Fishman, C. (2003), 'The Wal-Mart you don't know', *Fast Company*, Vol. 77 No. 1, pp. 68-75.

Fishman, C. (2006), 'The Wal-Mart effect and a decent society: Who knew shopping was so important?', *Academy of Management Perspectives*, Vol. 20 No. 3, pp. 6-25.

Gross Domestic Product (2006), Bureau of Economic Analysis, www.bea.gov.

Hoover's company records: In-depth records (2007), Sporting goods stores, http:// www.hoovers.com.

Jones, S. C., Knotts, T. L. and Udell, G. (2003), 'Supplier selection and development for small manufacturing enterprises', *New England Journal of Entrepreneurship*, Vol. 6 No. 1, pp. 33-44.

Raju, J. and Zhang, Z. J. (2005), 'Channel coordination in the presence of a dominant retailer', *Marketing Science*, Vol. 24 No. 2, pp. 254-262.

Rogers, D. (1996), 'Power retailers in Europe—American power retailing: What is it? And what is the threat to Europe?', *European Retail Digest*, Vol. 10, pp. 13-16.

Shapiro, L. J., & Foote, Cone & Belding (Chicago) (2003), 'Wal-Mart in Oklahoma: Market structure and segmentation study', Presented at *Chicago American Marketing Association BrandSmart 2004 Conference*, March 2004.

Udell, G. G., O'Neill, M. F. and Baker, K. G. (1977) *Guide to invention and innovation evaluation*, National Science Foundation: Washington, D.C.

Udell, G., Atehortua, C.H. and Parker, R.S. (1995) *The support American made manual of venture assessment.* Springfield, MO: Innovation Institute.