

AN EMPIRICAL TEST OF THE INTERNAL MARKET/EXTERNAL MARKET MODEL

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The Internal Market / External Market model argues that entities in the form of households, businesses or other social units can create, consume and/or use goods and services internally, thus avoiding the external market. This model suggests that seven key constructions (expertise capacity, resource capacity, time capacity, economic rewards, psychic rewards, trust and control) are relevant to an internal / external market choice decision. The IM/EM model was tested at the consumer-level, focusing on the consumption / production of automotive repair / maintenance services. The results generally supported the model, and supported nine of the twelve testable hypotheses. Theoretical and managerial implications were drawn from the findings.

INTRODUCTION

Exchange has been widely accepted as being the focal point of marketing, and it continues to serve as the fundamental basis for a large portion of all marketing research. Bagozzi (1974, 1975, 1979) contributed significantly to the popularization of the exchange paradigm in marketing, and his work, and the research of others, has helped to establish the prevailing view that the process of marketing involves two or more parties who voluntarily exchange items of value.

Throughout the past decade, marketing scholars have both broadened the applicability of the general exchange paradigm, and deepened their understanding of exchange-related behavior. Research in the area of buyer-seller relationships (Dwyer, Schurr and Oh 1987), strategic alignments (Day and Wensley 1983; Anderson 1982), and transaction-cost analysis (Williamson 1975; Ouchi 1980) has provided marketers with a better understanding of why exchange relationships may be either brief or lasting.

Increasingly, however, there have been examples, both recent and not-so-recent, of research which both pushes the limits of the exchange paradigm and challenges the fundamental belief that exchange is in fact the core of

marketing. In an insightful article, Arndt (1979) argued that markets (and therefore exchange) were shifting from an "external" to an "internal" orientation in that business organizations are internalizing a number of their relevant markets. This insight, however, is not a new revelation. Coase (1937), for example, recognized the firm as an important alternative to the traditional marketplace over sixty years ago. Even Bagozzi (1979) urged scholars to not consider only why exchanges are created and resolved but also why they are avoided.

Embedded within the argument presented by Arndt (1979) is the notion of a competitor to the traditional or established marketplace. Several viable (and not entirely obvious) alternatives to the traditional market can be said to exist, namely entities such as individuals, families, social groups, business organizations, and even nation-states, who by their very existence, or by choice, create and utilize unique internal markets. In a sense, these internal markets are actually competitors to the established or traditional market, which is external to these entities. Recently, Frenzen and Davis (1990) extended some of these same concepts, but at the consumer-level of aggregation, coining the term "embedded markets."

These "competitors" to the external marketplace have been known for sometime now. As cited earlier, decades ago Coase (1937) identified the organization as an important competitor to the market. Alchian and Demsetz (1972) make a similar argument:

...opportunities for profitable team production by inputs already *within* the firm may be ascertained more economically and accurately than for resources outside the firm. Superior combinations of inputs can be more economically identified and formed from resources already used in the organization than by obtaining new resources....

From a transaction-cost perspective, Dixon and Wilkinson (1986) argue in a similar vein:

A group is faced with two potential transaction mechanisms – the market and the organization – and the choice requires calculation of the respective costs and benefits.

The potency of established organizations, groups or entities in relation to established markets was recognized by a number of early marketing scholars. Bartels (1944) had some interesting insight into the importance of the family:

The household as an organized behavior system must be given special attention...in marketing. The household is an operating entity with an assortment of goods and assets and with economic functions to perform.

Bartels seems to have argued that the process of marketing could be found within the family or household. Indeed, the household (whether it be an individual or several individuals) can be and is a competitor to the traditional marketplace via self-production for self-consumption. Recently, Hirschman (1987) argued this very same point:

...the restriction of marketing to an exclusively exchange paradigm would tend to exclude from research attention activities such as self-production for self-consumption or group production for group consumption. To be comprehensive, marketing should be able to accommodate the production/consumption cycles of such self-sufficient individuals and groups, as well as those in which resources are

exchanged with external parties to create the desired outcome....

Economists have implicitly recognized the internal market, and have labeled it as “non-market activity” (Buchanan 1965; Scitovsky 1976). Hawrylyshyn (1977) presents some of the strongest arguments for a theory or model of non-markets, and offers the following logic for supporting increased research attention to non-market activity:

1. Economic activity comprises only a part of human activity, but the part is important enough to merit the attention of social accountants.
2. Market activities comprise only a part of economic activity.
3. Non-market economic activities can, and hence should be measured in a way analogous to market activities.

Kotler (1986), in a similar vein, also warns marketers of being “overprotective” of the external market system:

The purpose of exchange networks is to facilitate the pursuit of human satisfaction.

If the market system is overextended, and if people want to meet more of their needs, on what grounds should marketers object? The market, after all, is a human invention and it will last as long as it serves human needs. Before markets, there were other ways for goods and services to be created and distributed, including reciprocity and redistribution agreements.

Societies that move in new directions to meet human needs should not surprise us.

Although the concepts of the market and exchange are central to the marketing discipline (and to other disciplines as well), it is becoming increasingly evident that alternatives to the market and to exchange are both important and deserving of research attention.

TOWARDS A NEW UNDERSTANDING OF MARKETS AND EXCHANGE

To summarize the discussion to this point, within the discipline of marketing, the exchange paradigm has evolved by first being broadened in its applicability and then being deepened in terms of understanding the nature of specific exchange relationships. Over time, however, the overall applicability of the exchange paradigm has been questioned or at least challenged. A number of scholars have realized that alternatives to the traditional market exist (Coase 1937; Bartels 1944; Arndt 1979; Hawrylyshyn 1977; Ferber and Birnbaum 1977; Frenzen and Davis 1990), and others have realized that exchange is not always necessary in order to create value (Hirschman 1987). There are significant alternatives to exchange and to the traditional market, and these options need to be more fully incorporated into marketing thought and research. The discipline has, at times, appeared to have a preoccupation with external exchanges. Yet, how does marketing consider and account for internal exchanges (e.g., an individual creates their own good or service), and for those situations where an internal market creates value without engaging in exchange? There appears to be somewhat of a danger in the overemphasis placed on the exchange paradigm and established (or external) market within the discipline, in that such a view limits the ability of marketing scholars to incorporate the internal market into their thinking and research. A more comprehensive view, incorporating and recognizing the competition between internal and external markets, is needed.

An appropriate beginning to this investigation is to ask some very basic questions. Why do entities sometimes avoid the market? Why do they decide to fulfill their needs internally within the organization or entity versus externally via exchanges in the market? These fundamental questions would seem to require answers in order for us to fully understand marketing, markets (both internal and external) and the concepts of exchange and non-exchange (or self-production for self-consumption). These questions and a search for their answers serve as the catalyst for this study.

Recognizing the desire to extend the exchange paradigm, a comprehensive model, which incorporates a range of

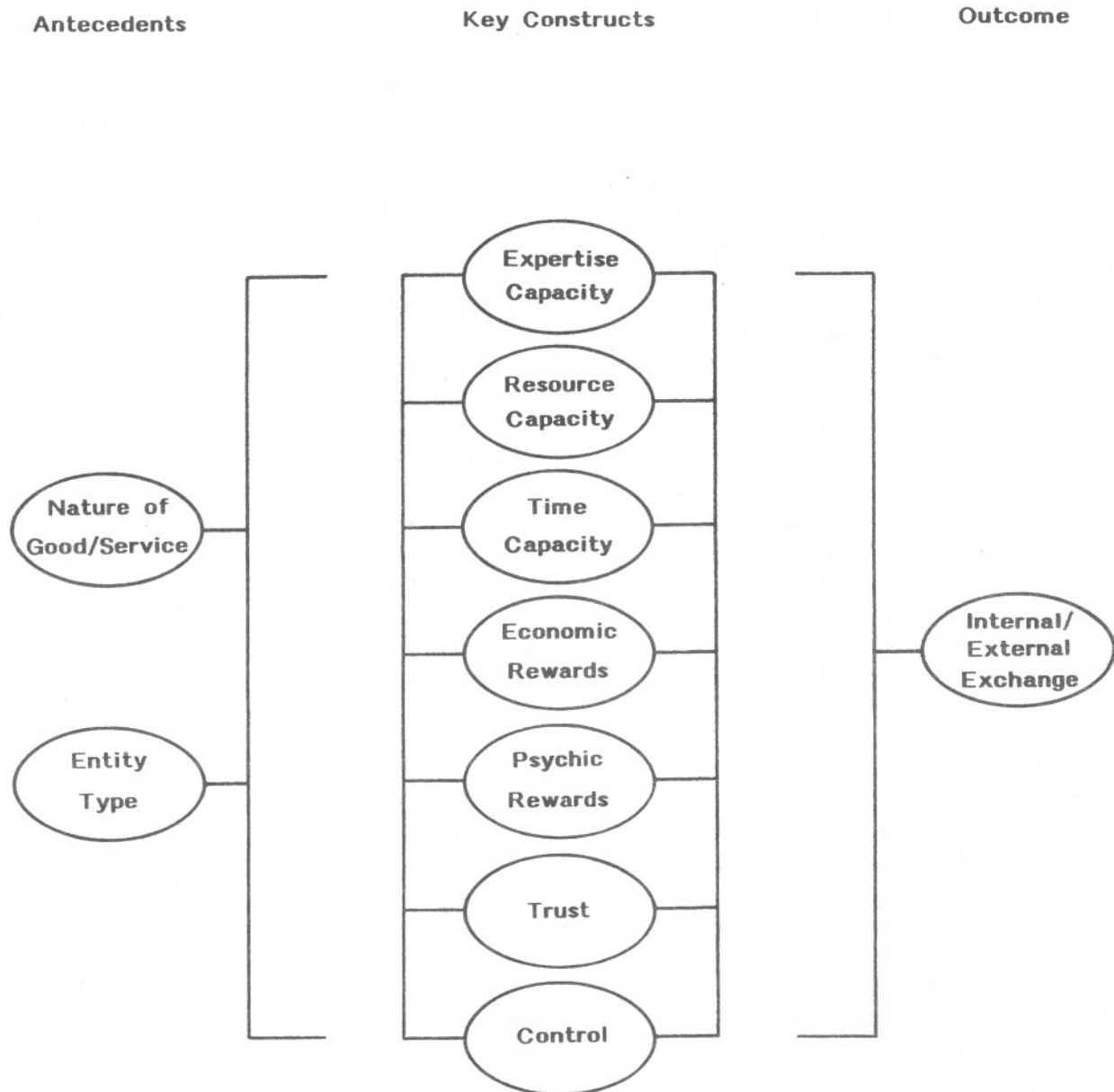
internal and external market activity was developed (please see Lusch, Brown and Brunswick 1992). The model was developed over a span of time, utilizing a variety of different model-building approaches, including the thorough examination of relevant literatures at the consumer- and firm-levels of aggregation, several pilot studies, video-tape interviews of consumers, retailers, managers, and a number of presentations at professional meetings.

A graphic of the Internal Market/External Market (IM/EM) model is found in Figure 1, and features nine factors which influence an entity's decision to access the internal vs. external market. The seven constructs in the middle column of Figure 1, which comprise the core or "key constructs" of the model, and are influenced by two broad antecedent factors — the nature of the good or service in question, as well as the type of entity. Conceptually, the model suggests that based upon the type of the "product," and the type of the entity (i.e., individual consumer, household, other groupings of consumers, businesses, strategic alliances, etc.), a consideration of the seven key constructs will determine which "market" will be selected (i.e., the "internal" market created by the entity itself, the external market (having someone else provide the "product") or some combination of the two — thus the nature of the outcome variable is continuous, rather than discrete).

The IM/EM model can apply to any meaningful group or entity such as an individual, a family, a specialized group, a business firm, or even a nation-state. Regardless of the entity in question, the core argument presented here evolves around a basic decision that exists for all of these groups: should we use internal or external markets, or some combination of the two? Current marketing thought and research, however, do not incorporate the totality of internal market activity into the mainstream of the discipline.

Examples of internal market activity are abundantly evident at a number of different levels of aggregation. Many times at the individual or household level it is referred to as do-it-yourself (DIY), or non-market activity. At the organizational level, terms such as make-or-buy, transfer pricing, functional shifting/creation, and transaction-cost analysis refer in

Figure 1
A Model of Internal/External Markets (IM/EM)



part to the same basic concept. Until recently, however, no unifying model or framework that applies to any potential level of aggregation existed. Furthermore, virtually all of the existing models or frameworks explicitly recognize market alternatives as being discrete or dichotomous (i.e., make-or-buy) rather than continuous in nature.

OVERVIEW OF THE STUDY

Being that a comprehensive model of internal and external markets represents a relatively novel or unique perspective on exchange and markets, the central research problem is twofold: a) to further develop a comprehensive model of internal and external market activity, and b) to conduct an initial empirical test of such a model. Specifically, the research being presented here is an attempt to view a very basic decision: to use internal versus external markets, or some combination of the two. In a sense, the question relates to whether or not to use markets vs. non-markets, and whether or not to exchange vs. self-produce for self-consumption (non-exchange).

A comprehensive model of internal and external market activity could conceivably be tested in a number of different settings and at a number of different levels of aggregations. Initially, a strong argument can be made for a relatively basic test of such a model. The quality of later tests of the model may also depend, to some degree, upon the value of this initial test.

Consistent with this logic, the initial test is conducted at the consumer-level of aggregation. Although a large number of potent internal markets exist in the form of business organizations, and the firm has long been recognized as an internalized market, a number of organizational dynamics at the firm-level would make an initial test of the model especially difficult. Conceivably, however, the model could be tested at any level of aggregation, and will be tested at the organizational-level of aggregation at some later point. The specific research question for the proposed study focuses on whether a consumer (i.e., an individual or a household, or some other type of consumer-based internal market) should perform their own automobile servicing/repairs (i.e., use the internal market) or have a firm complete the

necessary servicing/repairs (i.e., use the external market). It is believed that the vast majority of the general population has to contend with repair/maintenance tasks for their automobiles.

Reflecting the existing literature in relation to the model of IM/EM, a series of research hypotheses were developed, and can be found in Figure 2. The majority of these hypotheses both reflect and extend the current literature in their respective areas (for a fuller discussion, see Lusch, Brown and Brunswick 1992). Definitions of the seven key constructs in the model can be found in Figure 3. In developing the measurement of these constructs, the approaches suggested by Churchill (1979), and by DeVellis (1991) were used, resulting in a series of 51 scales. The eventual questionnaire was pretested in a variety of settings, and was 8 pages in total length, requiring approximately 15 minutes to complete. The antecedent factors in the model were dealt with in two different ways, and were not intended to be an important element of this first application of the model; in the case of task complexity, two different levels of task complexity were employed (low vs. high task complexity), while only one type of entity was sampled, that being the household. Future applications of the model can be used to further explore these two antecedent influences. Finally, the outcome variate, market choice, was limited to only two categories (i.e., internal and external market choices); conceivably a number of market choice outcomes could be developed, given different research scenarios.

The sample is comprised of subjects who were intercepted at aftermarket retailer establishments where automobile parts are purchased and/or automobiles are actually serviced. Subjects who were apparently using the internal market were intercepted once the purchase of specific types of parts had been made (i.e., interception took place in various aftermarket auto parts stores). Subjects who are having specific types of service done to their automobile represented the external market group (i.e., interception in this category took place in a number of automobile service centers). Subjects in both of these categories were approached during (EM Group) or immediately following (IM Group, and some of the EM Group) the purchase of

FIGURE 2
Research Hypotheses

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- H₁:** Households with a high (low) level of perceived expertise capacity are more likely to access the IM (EM). (Alba and Hutchinson 1987; Williamson 1975)
- H₂:** Households with a high (low) level of perceived time capacity are more likely to access the IM (EM). (Boserup 1965; Jensen and Meckling 1976)
- H₃:** The greater the perceived economic rewards, the more likely a household will access the IM. (Becker 1965; Deserpa 1971; Holbrook and Lehmann 1981)
- H₄:** Households who access the IM will perceive/obtain psychic rewards via their market choice. (Hawrylyshyn 1977; Scitovsky 1976; Feldman and Hornik 1981)
- H₅:** Households with a high (low) level of perceived trust will access the IM (EM). (Williamson 1975; Arndt 1979; Dwyer, Schurr and Oh 1987; Spekman 1987)
- H₆:** Households desiring (not desiring) control are more likely to access the IM (EM). (Alderson 1958; Robinson 1977; Williamson 1975)
- H_{7A}:** As the household's level of perceived expertise capacity increases, the level of perceived time capacity will also increase.
- H_{7B}:** As the household's level of perceived expertise capacity increases, the level of perceived psychic rewards will also increase.
- H_{7C}:** As the household's level of perceived expertise capacity increases, the level of perceived trust will also increase.
- H_{7D}:** As the household's level of perceived expertise capacity increases, the level of perceived control will also increase.
- H₈:** As the household's level of perceived time capacity increases, the level of perceived psychic rewards will also increase.
- H_{9A}:** As the household's level of perceived trust increases, the level of perceived psychic rewards will also increase.
- H_{9B}:** As the household's level of perceived control increases, the level of perceived psychic rewards will also increase.
- H_{9C}:** The household's levels of perceived economic and psychic rewards will have a reciprocal effect.

FIGURE 3
Construct Definitions

Expertise Capacity - The perceived level of domain-specific skill or knowledge that is possessed by a household as it relates to a particular exchange or market choice situation. (Ten items were developed to reflect this construct: level of previous experiences, mechanical aptitude and inclination, ownership of manuals, previous related and non-related DIY experiences, ability to gain advice, task familiarity)

Resource Capacity - The perceived level of domain-specific physical assets possessed by a household as they relate to a particular exchange or market choice situation. (Five items: quantity of tools owned, ability to borrow tools, ownership of facilities, perceived resource capacity)

Time Capacity - The perceived level of domain-specific finite duration which is available to and can be allocated among members of a household. (Seven items: propensity to spend time on work/non-work, work and hobby task self-definition, satisfaction with time allocation, perceived time capacity)

Economic Rewards - The perceived level of domain-specific financial or monetary benefits (or costs) associated with various market alternatives. (Six items: size of expenditure, importance of discounts, awareness of market alternatives, expected task repetition, perceived monetary rewards)

Psychic Rewards - The perceived level of domain-specific personal gratification or satisfaction (or dissatisfaction) associated with various market alternatives (Seven items: task stress, task interest, satisfaction associated with market choice, task, importance of closure-related satisfaction, perceived psychic rewards)

Trust - The perceived level of domain-specific confidence or certainty associated with various market choice alternatives. (Six items: perceived quality of parts, labor, task importance, self-perceived trust, trust in service providers)

Control - The perceived level of domain-specific ability to direct or influence relevant task processes given various market choice alternatives. (Six items: ability to direct task processes, communication ability, global desire for control, perceived level of control)

Market Choice - The market (internal or external) which was accessed by the household. (Four items: typicality of market choice, task orientation)

either parts or service, and then were screened in an attempt to control for the nature of the good/service in question, or task complexity (i.e., two tasks were identified in the study – low complexity would be an oil change, high complexity would be a brake job). Once intercepted and screened (i.e., to verify ownership, responsibility and other related issues), subjects were asked to complete (and immediately return) a questionnaire, referring to the automobile repair/servicing that was currently in question. Within

the instrument, multiple indicants of all of the model constructs were employed. A total sample size of 167 was achieved, representing a 57 percent response rate; a financial incentive, with a value of \$10.00, was used to solicit subjects' participation. A breakdown of the sample resulted in 72 households representing the IM (i.e., 25 households in the high-complexity task category (brake work) and 47 households in the low complexity task category (oil change) and 95 households utilizing the EM (i.e., 36 high complexity, 59 low complexity).

DATA ANALYSIS / RESULTS

Once the data was collected, the measures for the seven key constructs (expertise capacity, time capacity, resource capacity, economic rewards, psychic rewards, trust and control) and the outcome variable (market choice) were purified using exploratory and confirmatory factor analysis. Following this, the hypothesis testing procedure, which was facilitated via modelling the implied covariance structure with LISREL 7, was used. The confirmatory factor analysis and structural path modelling were conducted following the two-step procedure recommended by Anderson and Gerbing (1988).

The results of the exploratory factor analysis (principal components/varimax rotation) yielded seven identifiable factors (indicated by 28 items), with eigenvalues ranging from 11.59 to 1.15; each of the seven factors tended to follow the initial definitions of key constructs in the model. The final confirmatory factor analysis (CFA) can be found in Figure 4; several problems were encountered in developing this final model, specifically (1.) illegal squared-multiple correlation values and large normalized residuals for the market choice construct indicators, (2.) low squared-multiple correlations/high normalized residuals for the items relating to the monetary rewards constructs, and (3.) low squared-multiple correlations/high normalized residuals associated with the items loading on the resource capacity construct. The problems with the market choice construct were rectified using a method suggested by Anderson and Gerbing (1988), and by Howell (1987), whereby the researcher can, when using latent variables with a single indicator, establish (1.) the relationship of an indicator's loading on its underlying construct to that indicator's reliability and (b.) the error variance for the indicator by fixing the error term and associated lambda.

The problems associated with the monetary rewards and resource capacity constructs were resolved by eventually dropping these two constructs from the model, and thus from the analysis; initially, no hypotheses were associated with resource capacity construct, and only two hypotheses were associated with the monetary rewards construct. These problems can be corrected in

future applications of this model; as a result, reliable indicators were generated for the expertise capacity, time capacity, psychic rewards, trust, control and market choice constructs.

Given the final CFA results, the hypothesized structural relations were then modeled; the final structural model can be found graphically in Figure 5. A series of structural models were initially developed, eventually leading to the model found in Figures 5; the earlier versions of the model evolved from the initial baseline model (with all specific paths included), to another model which excluded the non-significant paths, to the final model, which includes one non-hypothesized path (i.e., Beta 41, or the path from time capacity to control). Each of these model iterations were considered in light of their conceptual, theoretical and statistical implications.

Overall, support was found for nine of twelve testable hypotheses (see Figure 6 for a summary of the hypotheses; also note that fourteen hypotheses were originally stated, with H3 and H9C being dropped due to measurement problems), suggesting strong support for the IM/EM model. Although the model fit statistics for the final structural and measurement model (See Figure 5) could have been better, the overall fit for the model is reasonable and is approaching acceptability. Some measurement problems were encountered, with the economic rewards, resource capacity, and market choice constructs; future replications and applications of this model/study will need to improve and enhance the measurement of all of the model constructs. Considering that the study represented an initial empirical test of this model, employing many original measures, the overall results are encouraging.

DISCUSSION OF RESULTS / IMPLICATIONS

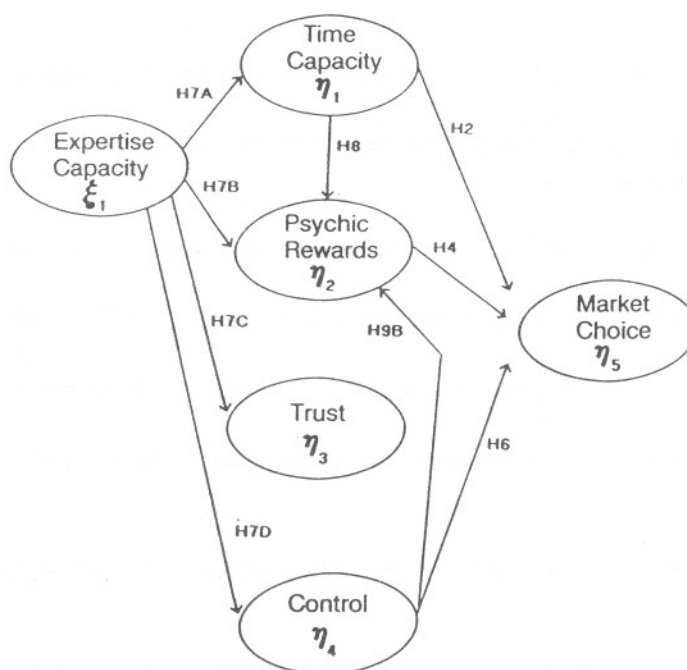
The overall findings suggest that expertise capacity plays a large, but indirect, role in influencing market choice via time capacity and control, while directly influencing all other model constructs. Time capacity, psychic rewards and control each have a direct influence upon market choice. Additionally, time capacity and control each appear to influence the level of psychic rewards. Households who access the IM appear to do

FIGURE 4
Parameter Estimates for the CFA / Measurement Model
Final Model

Construct And Indicators	ML Estimate	T Value	Standard Error	SMC	Avg. SMC
Expertise Capacity					
EXP2	1.379	13.72	.101	.764	
EXP3	1.641	13.33	.123	.736	
EXP8	1.327	10.12	.131	.499	.666
Time Capacity					
TIM4	1.614	13.66	.118	.731	
PSY2	1.261	10.19	.124	.495	
PSY6	1.592	13.35	.119	.710	.645
Psychic Rewards					
PSY4	.896	6.08	.147	.231	
PSY5	1.647	10.74	.153	.573	
CON6	1.230	9.66	.127	.486	.430
Trust					
TRU1	.704	8.08	.087	.431	
TRU2	.981	9.87	.099	.656	
CON1	.772	7.96	.091	.411	.499
Control					
CON2	1.630	12.07	.135	.695	
CON3	1.702	12.58	.135	.742	.719
Market Choice					
DEP2	2.251(*)	—	—	.900	.900
Goodness of Fit Index		.893			
Adjusted Goodness of Fit Index	.702				
Root Mean Square Residual		.209			
Chi Square (77)	156.68				
P <		0.000			

Note: (*) indicates a fixed value; all t-values significant at $p < .01$

Figure 5
Significant Paths and T-Values for Final Structural Model



Significant Paths (denoted above)

Hypothesis	Structural Path	T-value	p <
H2	Beta 5 1	3.385	.01
H4	Beta 5 2	2.806	.01
H6	Beta 5 4	3.036	.01
H7A	Gamma 1 1	5.849	.01
H7B	Gamma 2 1	2.282	.02
H7C	Gamma 3 1	2.745	.01
H7D	Gamma 4 1	3.342	.01
H8	Beta 2 1	3.801	.01
H9B	Beta 2 4	3.443	.01
NH	Beta 4 1	2.285	.02

Overall Model Fit Statistics

Goodness of Fit Index	.886
Adjusted Goodness of Fit Index	.651
Root Mean Squared Residual	.218
Chi Square (79)	163.78
P <	0.000

FIGURE 6
Summary of Hypotheses/Results

H ₁ :	Households with a high (low) level of perceived expertise capacity are more likely to access the IM (EM). <i>Reject</i>
H ₂ :	Households with a high (low) level of perceived time capacity are more likely to access the IM (EM). <i>Accept</i>
H ₃ :	The greater the perceived economic rewards, the more likely a household will access the IM. <i>H3 dropped due to measurement problems</i>
H ₄ :	Households who access the IM will perceive/obtain psychic rewards via their market choice. <i>Accept</i>
H ₅ :	Households with a high (low) level of perceived trust will access the IM (EM). <i>Reject</i>
H ₆ :	Households desiring (not desiring) control are more likely to access the IM (EM). <i>Accept</i>
H _{7A} :	As the household's level of perceived expertise capacity increases, the level of perceived time capacity will also increase. <i>Accept</i>
H _{7B} :	As the household's level of perceived expertise capacity increases, the level of perceived psychic rewards will also increase. <i>Accept</i>
H _{7C} :	As the household's level of perceived expertise capacity increases, the level of perceived trust will also increase. <i>Accept</i>
H _{7D} :	As the household's level of perceived expertise capacity increases, the level of perceived control will also increase. <i>Accept</i>
H ₈ :	As the household's level of perceived time capacity increases, the level of perceived psychic rewards will also increase. <i>Accept</i>
H _{9A} :	As the household's level of perceived trust increases, the level of perceived psychic rewards will also increase. <i>Reject</i>
H _{9B} :	As the household's level of perceived control increases, the level of perceived psychic rewards will also increase. <i>Accept</i>
H _{9C} :	The household's levels of perceived economic and psychic rewards will have a reciprocal effect. <i>H9C dropped due to measurement problems</i>

so because they possess expertise capacity, time capacity, and view the IM as providing them with significant levels of psychic rewards and control over task processes. For these same households, their relatively high level of domain-specific expertise also positively influences their levels of time capacity, psychic rewards, trust and control. Additionally, time capacity and control have a positive impact upon psychic rewards.

On the other hand, households who access the EM ostensibly lack expertise capacity and time capacity, and do not view psychic rewards and control as being important and/or associated with their market choice. The lower levels of domain-specific expertise possessed by these households (compared to the IM households mentioned previously) result in lower levels of time capacity, psychic rewards, trust and control. Finally, time capacity and control have a negative impact upon psychic rewards, trust and control. From the viewpoint of both "types" of households, it again appears that expertise capacity has an albeit indirect influence upon market choice, but a major influence in the model. Time capacity, as would be expected, has a direct influence over market choice, while the presence/absence of perceived psychic rewards and control associated with the IM vs. the EM also play an important role in determining market choice. Overall, the findings appear to be generalizable to a wide variety of "Do-It-Yourself" type exchange/value creation settings within the household.

A large number of managerial implications can be drawn from the study. Marketers, including manufacturers and retailers, who are involved with aftermarket automotive repair/maintenance products intended for use by households should be able to benefit from a number of the conclusions reached in this study; additionally, the implication drawn from this study serve as examples of the significant number of managerial implications generated by applications of the IM/EM model. One major conclusion relates to the role of expertise in the model, and in determining market choice. Although expertise has no direct influence on market choice, it has an indirect influence via two of the other model constructs — time capacity and control. Efforts to enhance/improve expertise capacity on the part of

households would most likely result in more internal market activity, and could be achieved by in-store training, availability of repair manuals, the willingness of employees to provide advice, products which have features which require lower levels of expertise, toll-free customer assistance, informational video kiosks featured near parts displays, and a variety of other mechanisms. Efforts on the part of retailers and manufacturers of aftermarket automotive products to increase household expertise will most likely result in significantly increased levels of initial and repeat do-it-yourself (IM) activity by these same households.

Given the increasingly complex nature of technology, however, a number of challenges exist for aftermarket parts marketers to make sure that consumers and households are able to keep pace with advancements in automotive technology. Increasingly, there are signs that consumers are lacking in expertise given the computerization of automotive systems, for example, and are becoming reluctant to attempt repair/maintenance tasks because of this increasingly complexity. ABS, or the anti-lock brake systems on many new automobiles would be a good example of this, where a relatively straightforward brake job has now become a task where a high degree of expertise and resource capacity are required, making IM activity (relating to this specific task) more and more rare.

Expertise also has a profound effect upon other constructs in the model, and these relationships can be useful to aftermarket IM marketers. Recognizing that expertise will influence the level of time capacity, psychic rewards, trust and control, these companies can train employees, for example, to reinforce internal market choice decisions by subtly reminding consumers of these relationships. Advertising and product packaging can also be used to reflect these important model relationships.

The role of time, psychic rewards and control in directly influencing market choice are also relatively clear conclusions from this study. Households will access the IM only when sufficient time capacity exists to do so; although marketers who serve the IM may not have a direct influence on time capacity, they should be aware of the significance of the construct, and attempt to use

this knowledge to their advantage. The role of psychic rewards in determining market choice is important here also; a number of aftermarket retailers and manufacturers appear to already understand this factor. Control was the final construct having a direct influence upon market choice, and these same firms need to further recognize and reinforce the importance of control in determining market choice. Households who access the IM do so, in part, because of their ability to direct relevant task processes.

Firms which are providers of aftermarket EM services can also benefit from the findings of this study. The role of expertise is also an important one for EM service providers, and for those households who may lack expertise and access the EM. Although it may be an obvious implication, the idea that EM service providers need to offer and signal expertise is an important one, particularly in light of the increasingly technologically complex state of automobile repair/maintenance. EM service providers may have a unique window of opportunity given the current gap between consumer expertise and automotive technology. As more and more households lack the sufficient expertise to complete automotive repair/maintenance tasks they were able to complete in the past, EM service providers in the automotive aftermarket area will need to convince former IM households that it is in their best interests to now access the EM. These households will be fundamentally different than those households who typically had already accessed the EM, and should be approached differently by these service providers. Efforts to more clearly communicate expertise-related service information (in an effort to contribute to the household's level of expertise capacity), provide some ability to direct task processes, and reinforce the psychic rewards associated with the (EM) market choice will be needed, since these households initially access the IM for reasons which were similar (based upon expertise capacity, psychic rewards and control).

The model interrelationships between expertise and time capacity, psychic rewards, trust and control can also be useful to EM service providers. Advertising and interactions with service personnel can be used to reinforce the relationships identified in this study; households which lack expertise can be reminded that

the choice of the EM was a "wise" decision because the household will save time, be more satisfied, and have a higher degree of trust when compared to selecting the IM. Additionally, these interrelationships will also need to be recognized and incorporated into the firm's marketing strategy for those former IM households who now seek the EM due to the increasingly complex nature of automobiles.

The lack of a significant finding relating to the direct influence of trust upon market choice is an interesting one; several possible explanations might exist, including the influence of the research context, combined with the special role of switching costs. Households, potentially, do not want to consider the issue of trust given that they have already identified a market alternative they are comfortable with; this argument can be combined with the notion that perceived switching costs may be quite high (in the research context), and trust would be an important element of those switching costs. Given the dynamic nature of the research context, aftermarket service retailers, in particular, would be well-served to devote more attention to the issue of trust, given the large number of IM households who will literally be "forced" into the EM as technology increases.

STUDY CONTRIBUTIONS / LIMITATIONS / FUTURE DIRECTION

Whether or not to use external vs. internal markets has potentially broad implications for marketers. Conceivably, areas of marketing which would benefit from research in this area include macromarketing, competitive strategy, market opportunity analysis, product development and, finally, marketing theory. These contributions go beyond the direct theoretical and managerial contributions and implications briefly summarized in the previous section.

The recognition of the potency of internal markets may cause some intriguing considerations for macromarketers and for public-policy makers. Problems in measuring non-market activity may receive renewed attention, and new insights into methods of assessing the quantity of non-market (or internal market) activity may also result from the study. The areas of competitive strategy, market opportunity analysis, and product development

may also benefit from this research. As noted earlier, internal markets may represent significant groups of "covert competitors" who ostensibly compete with a firm. A re-thinking of the whole notion of market share may yield some new perspectives. From a competitive strategy viewpoint, a fuller appreciation of the attractiveness of internal markets should stimulate firms to aggressively determine how to encourage organizations (or households) to switch from being their competitors to being their customers.

New product development efforts may be further defined (and their success potential enhanced) when the nature of this competition is better understood. The nature and scope of market opportunity analysis may also be changed when the internal market is included as a competitive force. Finally, the area of marketing theory may also benefit from the research suggested here. A model of internal/external market activity can help explain both marketing and its covert competitors, and the model may contribute to the long-standing goal of a general theory of marketing. Additionally, the perspective being suggested here should assist in refining the dominant external exchange paradigm in marketing in an effort to include alternatives such as internal market activity and self-production for self-consumption.

The limitations of the study are similar to the problems generally associated with originating and supporting a new perspective. Although there already exists a wide variety of literatures, models and frameworks which, piecemeal, relate to developing and testing a model of internal/external markets, the new model attempts to both summarize and extend existing thought and research. In such a case it is imperative to demonstrate the advantages of the new approach. Nonetheless, such a comprehensive and novel approach is prone to criticism. Additionally, the measurement problems associated with this initial application of the model, and the generalizability of the results beyond the level of aggregation/research context, should be noted.

Future applications of the IM/EM model initially will need to devote attention to enhancing and improving the measures developed here. Beyond this, areas of future investigation should include (1.) exploration of the influence of the two antecedent model factors (2.)

applications at different levels of aggregation (i.e., the business and/or nation-state level), (3.) applications utilizing various market choice scenarios, (4.) applications involving $N > 2$ market choice outcomes, and (5.) further exploration of issues related to inter-market (i.e., IM to IM, or EM to EM) and intra-market (i.e., IM to EM and EM to IM) switching. Ultimately, this research stream can lead to a body of generalizable knowledge (and the discovery of additional research issues) which will, over time, enhance our understanding of the process of marketing, and alternatives to the existing market.

REFERENCES

- Alba, Joseph W. and J. Wesley Hutchinson (1987), "Dimensions of Consumer Expertise," *Journal of Consumer Research*, 13 (March), 411-454.
- Alchian, Armen A. and Harold Demsetz (1972), "Production, Information Costs, and Economic Organization," *American Economic Review*, 62 (December), 777-795.
- Alderson, Wroe (1958), "The Analytical Framework For Marketing", in *Proceedings: Conference of Marketing Teachers from Far Western States*, Delbert J. Duncan, ed. Berkley, California: School of Business Administration, University of California, 15-28.
- Anderson, James C. and David W. Gerbing (1988), "Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach," *Psychological Bulletin*, 103 (3), 411-23.
- Anderson, Paul F. (1982), "Marketing, Strategic Planning, and the Theory of the Firm," *Journal of Marketing*, 46 (Spring), 15-26.
- Arndt, John (1977), "Toward A Concept of Domesticated Markets," *Journal of Marketing*, 43 (Fall), 69-75.
- Bagozzi, Richard P. (1974), "Marketing as an Organized Behavioral System of Exchange," *Journal of Marketing*, 38 (October), 77-81.
- (1975), "Marketing as Exchange," *Journal of Marketing*, 39 (October), 32-39.

- (1979), "Toward A Formal Theory Of Marketing Exchanges," in *Conceptual and Theoretical Developments in Marketing*, O.C. Ferrell, Stephen W. Brown and Charles W. Lamb, Jr., eds. Chicago: American Marketing Association, 431-447.
- Bartels, Robert D. W. (1944), "Marketing Principles," *Journal of Marketing*, 9 (October), 151-157.
- Becker, Gary S. (1965), "A Theory of the Allocation of Time," *The Economic Journal*, 75 (September), 493-517.
- Boserup, Ester (1965), *The Conditions of Agricultural Growth: The Economics of Agrarian Change Under Population Pressure*. Chicago: Aldine.
- Buchanan, James M. (1965), "An Economic Theory of Clubs," *Economica*, 32 (February), 1-14.
- Churchill, Gilbert A., Jr. (1979), "A Paradigm for Developing Better Measures of Marketing Constructs," *Journal of Marketing Research*, 16 (February), 64-73.
- Coase, Ronald H. (1937), "The Nature of the Firm," *Economica*, 4 (November), 777-795.
- Day, George S., and Robin Wensley (1983), "Marketing Theory With A Strategic Orientation," *Journal of Marketing*, 47 (Fall), 79-89.
- Deserpa, Alan (1971), "A Theory of the Economics of Time," *Economic Journal*, (December), 828-846.
- DeVillis, Robert R. (1991), *Scale Development: Theory and Applications*, Beverly Hills: Sage Publications.
- Dixon, Donald F., and Wilkinson, Ian F. (1986), "Toward A Theory of Channel Structure," in *Research in Marketing: Distribution Channels and Institutions*, L.P. Bucklin and J. Carman, eds. London, England: JAI Press.
- Dwyer, F. Robert, Paul H. Schurr and Sejo Oh (1987), "Developing Buyer-Seller Relationships," *Journal of Marketing*, 51 (April) 11 - 27.
- Feldman, Laurence P., and Jacob Hornik (1981), "The Use of Time: An Integrated Conceptual Model," *Journal of Consumer Research*, 7 (March) 407-419.
- Ferber, Marianne A. and Bonnie G. Birnbaum (1977), "The New Home Economics: Retrospects and Prospects," *Journal of Consumer Research*, 7 (June), 19-28.
- Frenzen, Jonathan K. and Harry L. Davis (1990), "Purchasing Behavior in Embedded Markets," *Journal of Consumer Research*, 17 (June), 1-12.
- Hawrylyshyn, Oli (1977), "Towards A Definition of Non-Market Activities," *Review of Income and Wealth*, 23 (March), 79-97.
- Hirschman, Elizabeth C. (1987), "People as Products: Analysis of a Complex Marketing Exchange," *Journal of Marketing*, 51 (January), 98-108.
- Holbrook, Morris B., and Donald R. Lehmann (1981), "Allocating Discretionary Time: Complementarity Among Activities," *Journal of Consumer Research*, 7 (March), 395-406.
- Howell, Roy D. (1987), "Covariance Structural Modeling and Measurement Issues: A Note on 'Interrelations Among A Channel Entity's Power Sources'," *Journal of Marketing Research*, 24 (February), 119-126.
- Jensen, Michael C. and William H. Meckling (1976), "Theory of the Firm: The Managerial Behavior, Agency Costs, and Ownership Structure," *Journal of Financial Economics*, 3, 305-360.
- Kotler, Philip (1986), "Prosumers: A New Type of Consumer," *Futurist*, 20 (September-October), 24-28.
- Lusch, Robert F., Stephen W. Brown, and Gary J. Brunswick (1992), "A General Framework for Explaining Internal Vs. External Exchange," *Journal of the Academy of Marketing Science*, Special Issue on Marketing Theory, Shelby Hunt, ed., 20 (Spring), 119-134.
- Ouchi, William G. (1980), "Markets, Bureaucracies, and Clans," *Administrative Science Quarterly*, 25 (March), 129-141.
- Robinson, John P. (1977), "The 'New Home Economics': Sexist, Unrealistic, or Simply Irrelevant?," *Journal of Consumer Research*, 4 (June), 178-184.
- Scitovsky, Tibor (1976), *The Joyless Economy*. New York: Oxford University Press.
- Spekman, Robert E. (1987), "Perceptions of Strategic Vulnerability Among Industrial Buyers and Its Effects on Information Search and Supplier Evaluation," unpublished working paper. Los Angeles: University of Southern California.

Walker, Gordon and David Weber (1984), "A Transaction Cost Approach to Make-or-Buy Decisions," *Administrative Science Quarterly*, 29 (September), 373-391.

Williamson, Oliver (1975), *Markets and Hierarchies: Analysis and Antitrust Implications: A Study In The Economics of Internal Organization*. New York: Free Press.

——— (1985), *The Economic Institutions of Capitalism: Firms, Markets and Relational Contracting*. London: The Free Press.