Examination Of Intrinsically Motivated Shopping Behaviors Across Contexts

Jack A. Lesser, (E-mail: lesserja@muohio.edu), Miami University of Ohio
Mohammad Mahdavinia, (E-mail: smmahdavi26@yahoo.com), University of Isfahan, Iran

Abstract

This exploratory research determines the measurement dimensions of intrinsic motivation for shopping behavior contexts. In addition, the dimensions are suggested to be strongly related and they are assessed for their possible unidimensionality. Based on findings, this research indeed provides evidence that the dimensions are highly related. Evidence is also found to support the similarity of intrinsic motivation dimensions across different contexts, such as age and income. Different future research strategies are suggested for further advancement of inquiry about intrinsic motivation in shopping and intrinsic motivation in general.

1. Introduction

Intrinsic motivation is the engagement in activity “for its own sake,” as opposed to the achievement of external rewards (Lepper and Greene 1978; Deci and Ryan 1985). Why have approximately a thousand publications dealt directly or indirectly with intrinsic motivation (Vallerand 2000)? The American Psychologist (2000) special issue was written to launch the next century, titled Enjoyment, Excellence, and Optimal Human Functioning, and largely dealt with issues from the earlier intrinsic motivation. Sansone and Harackiewicz’s (2000) summary review on intrinsic and extrinsic motivation ended in title as, The Search for Optimal Motivation and Performance, view through the title of their book on intrinsic motivation give away among the most convincing explanations in the title of their book titled, “Intrinsic and Extrinsic Motivation: The Search for Optimal Motivation and Performance.” This is not to say that extrinsic rewards are unimportant: most educators give students grades to stimulate learning and political lobbyists are fully concerned with “controlling” the outcomes of legislators to vote in a certain way. In a sense, “intrinsic motivation” is important because it inspires individuals to “go the extra mile.” Recently, Johnny Bench (1998) justified the metaphorical role of “intrinsic motivation” in baseball: he said that “clutching up on the bat” and going hitless for some time is similar to having an ongoing “panic attack.” According to him, successful batters feel spontaneous and immersed in the passion of the “process” of the swing.

As explained in more detail, the concept of intrinsic motivation is not adequate attention in marketing and shopping behavior research. When measured, single item and non-psychometrically derived scales are common (e.g., Bear- don and Korgaonkar 1980; Holbrook, Chestnut, Oliva, and Greenleaf 1984). Some consumer investigators have examined concepts which are related to intrinsic motivation, such as general personality optimum stimulation and variety-seeking tendency. However, a measure of intrinsic motivation makes important theoretical contributions to shopping behavior which can not adequately be captured by these other concepts.

Furthermore, intrinsic motivation may very well contribute to the conceptual foundations of concepts which have often been studied in marketing. For example, store loyalty, consumer involvement, and customer satisfaction, are commonly examined by consumer and shopping behavior investigators. These concepts involve personal, or intrinsic desires, and they would benefit from the considerable existing research from the social sciences. Even more fundamentally, it is difficult to gain closure about why individuals shop without consideration of the inherent, or intrinsic motivation during its momentary process.
Therefore, one goal of this article is to determine the underlying dimensions of intrinsic motivation in shopping behavior. The second goal is interrelated: this research is concerned about the extent to which the dimensions are so integrated within one’s consciousness that they are indistinguishable. Certainly, the overall process of psychometric scale development generally attempts to develop reliable and distinguishable measures. However, there is reason to believe that intrinsic motivation is an unidimensional and single concept on the conscious level and when applied to shopping.

As explained more fully later, two different forms of theories have been used to examine psychological intrinsic motivation. One, based on an optimal level of arousal, is centered on affective processes, and the other, concerned with the demonstration of competence and self-determination in the environment, has a cognitive orientation. A number of scales have been developed in the social sciences that measure intrinsic motivation dimensions and they tend to take on one or the other of these orientations. However, as explained in the next section, the originating bases of both of these theories appear to be based on similar rationales.

Given the ambitiousness of both goals, this research adopts a highly conservative measurement approach and it examines all dimensions with clear theoretical support from the two intrinsic motivation theories. The statistical analyses include the entire process of psychometric scale development and assessment procedures to determine dimensions and scale items most suitable to measure intrinsic motivation in shopping behavior. Regardless, all phases of the research are clearly regarded as exploratory and diagnostic, and appropriately, exploratory forms of statistical analyses are used. However, this research is ultimately concerned with providing a solid initial basis which can be used by others when intrinsic motivation in shopping behavior transforms from an exploratory to causal area of inquiry.

2. Theories Of Intrinsic Motivation And Measurement Dimensions Of This Research

2.1. Optimal Level Of Arousal As The Classical Basis Of Intrinsic Motivation

The origins of intrinsic motivation can be traced to Berlyne (1960) and others (i.e., Dember & Earl 1957; Fiske & Maddi 1957; and, Hunt 1965) who developed “optimal level of arousal” theories to explain humans’ innate desire for curiosity and exploration. Previously, drive theories prevailed and they emphasized that the role of motivation was to reduce discomforting arousal and incongruity caused by aversive biological drives (Hunt 1965). However, Berlyne (1960) and others extended drive theory and they took the position that individuals were also motivated to increase arousal to an optimal level out of the inherent enjoyment involved in exploration to satisfy curiosity. This theory assumes that individuals seek an optimal level of arousal because they are curious and desire challenge and, up to this optimal level, arousal is consciously equated with positive affect.

Contemporary measurement attention continues to be given to optimal level of arousal forms of theory. Notably, Csikzentmihalyi’s (1990) concept of “enjoyment flow” has been given considerable attention, and it has been used in marketing (e.g., Hoffman & Novak 1996) to describe the inherent and transcending enjoyment of intrinsically motivating activity. According to him, enjoyment flow exists during moments when challenge is in balance with an individual’s ability. These theories were not source of many multi-item scales. However, they transformed psychology by emphasizing positive affect arousal and desires for curiosity and challenge. Therefore, three initial dimensions of shopping behavior intrinsic motivation in this research are perceptions of the activities: (1) enjoyment; (2) curiosity; and, (3) challenge.

2.2. Perceived Competence And Self-Determination As Contemporary Basis Of Intrinsic Motivation

A second theory of intrinsic motivation received contemporary popularity through White’s (1959) concept of “effectance motivation.” Through psychoanalytic theory, he emphasized that experiences to be effective in the environment represented an “independent ego energy,” or innate motivational disposition.

Deci (1975) and Deci and Ryan (1985) were influenced by White and currently are among the most widely recognized current intrinsic motivation investigators. Deci and Ryan (1985) argued that the general definition of intrinsic motivation “is based on innate, organismic needs for competence and self-determination.” deCharm’s (1968) theory of personal causality is often credited as providing justification of perceived competence and self-determination as dimen-
sions. According to deCharms (1968), individuals are either pawns of their environment (and lack self determination and competence) or origins (and are self-determined and competent). By being an origin of their own personal causality, individuals are viewed as being motivated “for its own sake.”

Deci and Ryan’s (1985) theories extend beyond the dimensions of competence and self-determination and they argue that self-determination is multi-dimensional. When classifying types of self-determination, they use Heider’s classical attribution theories that distinguish between personal desire and intention, on one hand, and environmental factors of motivation, on the other hand. According to them, one dimension of self-determined intrinsic motivation is the individual’s personal desire and the other is the extent to which motivation is free of environment’s imposition of impediments, controls, or contingencies. Therefore, based on Deci and Ryan (1985) and others’ most recent theories, the following three perceptual dimensions of shopping intrinsic motivation are also initially examined: (1) competence; (2) personal desire (self-determination); and (3) impediment freedom (self-determination).

2.3. Consideration Of Integration Of Theories And Dimensions

The two theories of intrinsic motivation (optimal level of arousal and perceptions of competence and self-determination) are conventionally viewed to be two distinctive explanations. Indeed, they appear to involve different predictions about shopping behavior. For example, an optimal level of arousal theory appears to be more concerned about momentary decisions to shop (such as during instances to increase arousal when bored), while perceived competence and self-determination are relatively stable traits. However, the possibility of relationships between these two strongly established perspectives is hardly minor. Each is fundamental to general psychological motivation theory and yet intrinsic motivation has been investigated as a function of either one theory or the other, but not from a potentially “more underlying” explanation involving both areas of inquiry.

Regardless, an argument can be made about the integration of variables from both theories. For example, optimal level of arousal theorists have been strongly influenced by Darwin and Piaget and their theories of competence and the development of competence. Berlyne (1960), and others, directly interpreted the desires for curiosity and challenge to be caused by species’ biological needs to acquire new information and improve in competence (the underlying concept of the other intrinsic motivation theory). More specifically, Berlyne’s theories were extremely concerned with brain functioning processes. He gave considerable attention to the process of information acquisition through the direct connection limbic arousal (reward/punishment affect) and cortex (cognitive competence) brain systems. In Psychobiology and Aesthetics (1971), Berlyne explained that positive and negative affect from the brain’s limbic and cognitive information systems were necessarily interrelated for an optimal level of information flow.

Buck (1985) and other physiological motivation psychologists (from Linsley 1957 to Derryberry and Tucker 1990) generally recognize that the brain’s cortex is concerned with the coordinatination of human competence through its direct communication with the limbic system’s management of positive and negative affect. Both competence cortex and affect limbic systems are so intertwined that on a conscious level it is impossible to distinguish between affect and feelings of competence. From the perspective of brain physiology and motivation, it is difficult to imagine that the conscious coordination of enjoyment, curiosity, and challenge are unrelated to desires for competence and self-determination. The two brain centers appear to spontaneously interact to maintain coordination and avoid entropy (chaos) of the different intrinsic motivation dimensions. In addition, shopping behavior is generally not regarded as having as significant of importance as other life roles (Kassarjian 1978), such as career and family, and perhaps have less need for slow and deliberate interaction between brain centers. It is the position of this article that all of the dimensions of intrinsic motivation, listed above, are highly related on a conscious level.

3. Methodology Of Dimension Determination And Assessment

3.1. Initial Item Determination And Data Collection Phases Of Dimensions

Based on the above review, the six dimensions of intrinsic motivation are listed in Figure One, along with statements that eventually are measured in the final study of this research. Prior to conducting the study, then statements were
written to measure each dimension. Emphasis was given to developing items that comprehensively covered aspects of the content of the dimensions’ theoretical definitions. The sixty items were randomly listed on a sheet of paper and definitions of dimensions were included. Eight expert judges (marketing, management, and psychology faculty) were selected to determine the items that measured the dimensions. In all dimensions, except for challenge, items were included on the initial survey as long as at least five judges selected its appropriate definition. Two “challenge” items failed to meet this criteria and they were included because they were identical to items in other published research.

Realistically, most statements were correctly paired by at least six judges. However, in order to be as open as possible for other phases of item elimination, a couple of items from non-challenge dimensions were included which were correctly paired by only five judges, as well as the two challenge statements that received less than five matches.

Based on the items from expert judges, statements are included on a final survey along with other validity assessment statements and demographics. A quota nonprobability sample was used to interview adults from a major Midwestern city. The initial and achieved sample breakdown are consistent with United States Census classifications. In essence, three different forms of data collection were used in the study during the final seven days of July, 1999 and first two days of August, 1999. Initially, two undergraduate students were paid to go to local city parks and other public places to obtain to have surveys completed. Later, the professor (middle aged, who conducted this study) from a major university in the area went to similar public places to request that surveys be completed and give particular attention to the quota “breakdown” goals. Finally, in order to “balance” final desired quotas, the professor used a “snowball approach” and requested that individuals from different firms have individuals complete the survey and return them by fax. These three alternative sets of procedures, and sample demographics provide different means to evaluate the robustness of the eventual findings.

4. Findings

4.1. Internal Consistencies Of All Retained Survey Items On Dimensions

Three different means of evaluating the internal consistencies of items on their dimensions were used in this research. First, the alpha reliabilities and item-to-total correlations were calculated on all statements and respective dimensions. Initial alpha reliabilities, and statements that failed to exceed a .40 item-to-total correlation on their respective dimensions, are reported in the first column of Table Three. In addition, alpha reliabilities of items, and items that failed to exceed a .40 item-to-total correlation in each of three sample phases were eliminated. Regardless, the items that did not exceed a .40 item-to-total correlation on samples of all females, all males, all individuals who had family incomes of $60,000 and less per year versus family incomes of over $60,000 per year, were almost identical.

This comprehensive examination of internal consistencies across all individuals and the seven sub-groups proved to be constructive. In each instance, the enjoyment, competence, and curiosity dimensions had alpha reliabilities that were fully acceptable without elimination of items. Furthermore, almost all items had item-to-total correlations on their respective dimensions of over .40 regardless of sample. The items with inadequate item-to-total correlations tended to remain the same, regardless of group. The findings that, regardless of gender, income, sequence of interview, type of interview, or other external factors, extreme consistency was found about the items that should be used to measure each dimension.

The items which consistently had low item-to-total correlations were removed from the dimensions. One exception was made: item 6 had a low item-to-total correlation for men but in all other seven groups it had a fully acceptable reliability. Therefore, it was retained as a measure of impediment freedom. The retained thirty five items had good reliabilities, across all samples, on their dimensions. Some scales have items of only three or four items and yet alphas of each dimension remained above .80. These items have good support both as reliable indicators of their respective dimensions and as robust measures across different types of shoppers and alternative forms of research.
4.2 Predictive Validity Assessments Of Final Scales

Three forms of validity assessments were used to evaluate the six scales. First, individuals were asked, on a 0 to 10 scale, to indicate how strongly agree with the statement, “Shopping for merchandise is pure freedom.” This statement was removed from other items on the survey. Experimental intrinsic motivation research often measures how often people spend on an activity that is freely selected. The statement appears to be as closely associated to the definition of intrinsic motivation, “involvement in an activity for its own sake,” (Deci and Ryan 1985; Lepper and Greene 1978) as possible. Polynomial regressions were used to measure the p-values of the linear and quadratic fits of the scales on this measure. Initially, a regression that calculates the quadratic, as well as linear, relationship, was deemed of interest because optimal level of arousal theories are based on an inverse U motivation relationship. Several regressions are strongly linear and significantly quadratic. Although not shown here, in each case of a quadratic relationship, in reality, the scale items strongly predicted the dependent variable through the curve of an increasingly accelerating rate.

In addition, an “open ended” statement, “please list all of your spontaneous thoughts regarding shopping” was included on the survey. An “expert judge” who was not involved in the research “rated” each respondent’s comments according to how well the above definition of intrinsic motivation appeared to be met (on a 1 to 7 strongly disagree/strongly agree scale). The linear and quadratic relationships of the scales are also determined. The relationships of the scales were approximately the same in this “alternative methods” approach as with the rating scale.

Finally, a four-item measure of exploratory behavior in shopping (from Raju 1980) was used to evaluate the scales. Exploratory behavior is often argued to be a consequence of intrinsic motivation. The relationships are extremely high: with model p-values of less than .01 and “r-squares” between .30 to .54. Each of the different forms of predictive validity involved in this study strongly supported all intrinsic motivation scales.

4.3 Relationships Of Dimensions To Each Other

It is traditional in scale development studies to assess the possible relationships of scales in a number of “post hoc” manners because dimensions are generally assumed to be unrelated. However, on a conscious level, the two different basic intrinsic motivation theories appear to be theoretically related. The brain functions that cause the different dimensions are interconnected through spontaneous communication which insure the integrated functioning of the aggregate system. Indeed, a factor analysis can be calculated and it will give a reasonably good solution that captures the dimensions of this study. However, intrinsic motivation is one of the most important sources of potential theoretical integration of different shopping behavior concepts. Furthermore, as the introduction explains, intrinsic motivation is important to desirable human activity in other endeavors. Therefore, merely because it is possible to determine different dimensions is no reason to “insure” that they are “forced to be found” through factor purification and other methods.

An extremely harsh approach is used to assess the possible relationships of the dimensions. Specifically, the alpha reliabilities of all retained items, and their item-to-total correlations, are calculated for the overall sample, as well as for the other seven sub-groups of individuals examined earlier. The findings provide strongly encouraging preliminary evidence of the unidimensionality of the six different dimensions. Across samples, very few items fail to have item-to-total correlations that are not above .40, and the “total” represents all items that measure the combined six dimensions. “Added-up” scales of items of each dimension would produce even stronger support for the unidimensionality of the concepts.

4.4. Exploratory Factor Analysis Of Structure And Implications

Often, scales are developed through “purification” of dimensions by removing items that load highly on multiple factors. Given the above findings, that almost all items consistently reflect a single dimension, a factor analysis was calculated to provide further diagnostic insight about alternative potential scale development procedures. A conventional oblique factor analysis on all items was calculated. Using an “eigenvalue of one” rule, a relatively clear structure was obtained without purification. In general, the factors represent the titled dimensions (and final scale items of the same dimensions) that have been examined throughout this study. Items from the self-determination dimension, personal (de-
sire), load on factors from the five other dimensions. These items appear to add a slight “intensity of relevance” to the dimensions. For example, the personal item, “I most want to do if I could do anything at all” loads on the challenge factor and together they appeared to have a slightly more intensity of desire for challenge.

However, the most fruitful approach involves further and refined research about the relevance of the obvious interrelationships between all scale items and the possible theoretical relevance of personal (desire’s) loadings on the other factors and the existence of distinct (and) correlated dimensions of the factor analysis. One hand, the personal (desire) dimension items are more directly related than any of the other items to the “definitional quintessence” of intrinsic motivation. Although a “dimension” of personal (desire) is removed in the factor analysis, its clear theoretical relevance and high empirical loadings on the other factors are of interest. In addition, the possible theoretical distinctiveness of the other five dimensions should not be dismissed at this point. A number of different types of factor analysis were calculated and in all cases enjoyment has been the first factor and has explained a dominant proportion of variation. Competence is consistently the second factor and curiosity, challenge, and impediment freedom are always retained. Future direct experimental research to explain the predominately “single factor” phenomenon, as well as possible distinctions and theoretically based causal relationships between dimensions, through nomological validity assessments, are strongly recommended.

5. Discussion

This research is decidedly exploratory and has explored decidedly compelling issues. Intrinsic motivation has been among the most widely examined of concepts in the social sciences. It is almost unimaginable that the concept has been given such little attention in consumer and shopping behavior research. Given the findings of this study, it appears to be of particular relevance to marketing because the different dimensions of the concept are highly related and are associated with very diverse existing streams (i.e., loyalty, satisfaction, involvement) of consumer and shopping behavior research. Integration of different research streams in marketing is strongly needed and a concept of intrinsic motivation promises to assist in further scientific understanding of the discipline as a whole.

The most direct contribution of this article is that, at least within shopping behavior, different concepts appear to be almost unidimensionally related aspects of intrinsic motivation. From both theoretical and applied perspectives, new and refreshing vistas of research are outcomes of the finding.

On the applied level, “shopping intrinsic motivation” is a clearly important source of continued shopping loyalty. Strategies that relate to enhanced curiosity, perceptions of consumer competence, and reduced “impediments” when making a decision, are among those that appear to be fruitful related means to “intrinsically motivate” consumers. In addition, Hoffman & Novak (1996) published an article on the possible role of “enjoyment flow” on Internet use. Intrinsic motivation is a conceptually deeper concept for the development of enhanced causal Internet strategies.

As stated before, different research streams should not necessarily be disregarded when newer ones surface. Berlyne (1975) published an article, “Behavioralism? Cognitive Theory? Humanistic Theory? To Hull With Them All,” to illustrate the similarity of different theoretical approaches. It is possible that the context of shopping, or the research methods contributed to the strong relationships between dimensions and areas of theory. However, there is a pressing need for more integrative research and the examination of the relationships of different research streams across all of the social sciences. It is equally disappointing that the ultimate source of behavior, the human brain, a fascination of Berlyne, has rarely found its way into marketing theory.

The six dimensions, and measures, of shopping intrinsic motivation have good exploratory support. Marketing scholars should more fully develop research on these dimensions because of their promise to scientific knowledge. The limitations of the quota sample, and other aspects of the research, are obvious. However, a practically new concept in marketing has been examined and it has untapped potential.
6. References