

1-1-2015

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Recommended Citation

Tyagi, Pradeep (2015) "Motivation And Inequities As Antecedents Of Social Loafing In Marketing Group Projects," *Journal of International & Interdisciplinary Business Research*: Vol. 2, Article 9.

DOI: 10.58809/CJUN4761

Available at: <https://scholars.fhsu.edu/jiibr/vol2/iss1/9>

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MOTIVATION AND INEQUITIES AS ANTECEDENTS OF SOCIAL LOAFING IN MARKETING GROUP PROJECTS

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In a group project environment, students often do not fulfill their obligations in hopes of benefiting from the work of others. This phenomenon is referred to as social loafing. Group performance researchers have consistently observed that individuals exert less effort when their efforts are pooled compared to when their efforts are considered individually. This study examines the role of motivation and its components (Expectancy, Instrumentality, and Valence), as modeled by Expectancy-Value theory, in controlling the phenomenon of Social Loafing in marketing group project situations. The study further examines the effects of student equity/inequity perceptions on the social loafing phenomena. Data from marketing research students were collected to examine hypotheses based on expectancy-value and equity theories. Results suggest that when instructors clearly and forcefully provide guidance that tend to reinforce expectancies, the social loafing behavior is likely to decline. Findings also suggest that creating and forcefully enforcing equitable rules and guidelines can reduce social loafing. In addition, instructors can assist in creating an environment where students perceive a higher degree of control on classroom activities, further reducing social loafing phenomenon.

Marketing group projects cannot be carried out individually, requiring instead all group members to put forth a sincere effort to carry out complex tasks over an academic term to accomplish common goals. However, group performance researchers have repeatedly observed that individuals often exert less effort when their efforts are pooled compared to when their efforts are considered individually (Latane, Williams & Harkins 1979; Shepperd, & Taylor 2009). Latane et al. (1979) coined the term “social loafing” to describe lessened effort of people working collectively as opposed to coactively and described it as a social disease.

In marketing and sociological literature, researchers have examined a variety of factors that lead to social loafing and related behavior and have proposed different solutions (Aggarwal & O’Brian 2008; Karau & Williams 1993; Sheppard 1993). A body of research suggests that linkage between low motivation and effort in collective settings can best be conceptualized within expectancy-value theory and equity theory frameworks (Karau and Williams 1993; Kerr 1983, 1986; Shepperd 1995; Stroebe & Frey 1982).

LITERATURE REVIEW

Motivation and Social Loafing

In a group setting, Dommeyer (2007) describes social loafing as “behavior of group members who shirk their obligations in the hopes of benefiting from the work of others.” Specifically, social loafing occurs when a member of the group does not contribute fairly to the group work by demonstrating behavioral patterns such as not showing up to group meetings, not providing a quality input to group deliberations, and not completing assigned tasks on time.

Social loafing is more prevalent in group projects. It is more likely to be a problem when a group project requires considerable amount of effort from group members. Such could be a case involving marketing research projects, where students are required to be involved in a variety of complex and challenging tasks such as conducting exploratory research, designing research, collecting data, analyzing and interpreting research data.

In a longitudinal study (Tyagi, 2008) it was found that in any given academic term, anywhere from 12 to 25% of groups in a marketing research class experienced the problem of social loafing.

Motivation Theory and Social Loafing

Among several theoretical explanations of work motivation, expectancy-value theory has received the most attention in explaining human work behavior. Expectancy-value theory first popularized by Vroom (1964), describes motivation in terms of three major components: expectancy (E), instrumentality (I), and value (V) (Mitchell 1974; Porter & Lawler 1968). Over the years, expectancy-value model has been applied to understand role of motivation in influencing behavior in many different contexts (Gao, 2008; Hanna, 2006; Zhang, 2008).

The expectancy component (E) refers to an individual's perception that performance is contingent upon effort (i.e., that a greater effort would lead to a better performance). When a student contributes to a group assignment and his work is seen as not meeting quality standards by other group members, the individual may stop contributing based on the expectancy that even if he works hard his work may not be viewed as acceptable by group members. This is consistent with the expectancy-value theory proposition that in order for an individual to be motivated to perform, he must see efforts leading up to an acceptable or higher level of performance. A student may believe that if he works hard, he can write a good term paper (high effort expectancy). Alternatively, the student may feel that writing a good term paper is beyond his ability and that no matter how much effort he may expend, quality of the term paper will not be good (low effort expectancy).

Similarly, the instrumentality component (I) may contribute to the phenomenon of social loafing. The term instrumentality refers to the perception that a higher level of performance will lead to a higher level of reward. In the term paper example, a student may believe that a good paper will receive a good grade and a poor quality paper will receive a lower grade (high instrumentality). On the other hand, student may feel that the professor is inconsistent and will give the same or similar grade regardless of the quality of a paper (low instrumentality). If a student perceives a low instrumentality condition, such perception is likely to lead to social loafing behavior since higher level of performance is viewed as not leading up to desirable rewards (e.g., higher grade).

Finally, the value or valence component (V) can significantly contribute to social loafing as individuals may not attach much value to the outcome of their performance. This could be due to several situational factors such as the term paper may have a limited impact on a student's overall grade in the course he/she is taking. In one study, Albanese & Van Fleet (1985) found that in situations where individuals perceived a lack of desirable incentives availability, social loafing phenomenon tended to be high.

Considered together, motivation can be viewed as the product of expectancy, instrumentality, and outcome value. This implies that in a collective setting, student motivation should be high when he or she (a) perceives a contingency between effort and performance, (b) perceives a contingency between performance and the outcome, and (c) values the outcome. Thus, effort motivation reflects how much effort a person is willing to exert on a task or toward a goal, and to what extent he/she engages in a social loafing behavior.

Equity/Inequity Perceptions and Social Loafing

Equity theory literature indicates that perceptions of equity and inequity significantly influence a person's sense of psychological well-being (Taris et. al. 2004; Guerrero, La Valley, and Farinelli, 2008). People in work group situations tend to downgrade the significance of rewards that are perceived to be unfairly allocated (Vecchio, 1981; Perry, 1993). In classroom situations, some instructors may often evaluate student performance on the basis of some subjective and easy to quantify rules. The rewards based on such subjective evaluations may not coincide with what an individual student may consider equitable rewards. This is particularly true when a student perceives that his/her higher level of input (effort) would lead to the same level of rewards as some other group members' lower level of input (effort). When a student receives rewards (e.g., grade on a particular assignment) that are perceived to be inequitable, it is likely that he/she may attach a low importance to such rewards to reduce the tension caused by inequity feelings. Vroom (1964) suggested that "the importance of a given level of wages to a worker is dependent not only on its amount but the extent to which it is believed to be

fair or equitable.” In the context of a marketing research work group situation, it is likely that when a student perceives that in spite of his/her greater level of effort, reward will be the same as received by other group members who expended a much lower level of effort, the tendency to put forth a higher level of effort will decline and would lead to social loafing.

High versus Low Control Students

A number of studies (Dulaney, 1968; Mitchell & Biglan, 1971; Kidd et al., 2009; Paolo, 2009) have suggested that the way expectancies and instrumentalities influence an individual's effort is greatly influenced by his/her perception of control over the behavior in question. A student may perceive that he/she does not have the necessary tools or time to carry out the assigned task(s). For example, the student may not have a laptop computer that he/she can bring to the classroom and practice data analysis with other group members. Similarly, a student who works full time may not have time to go to the instructor's office to clarify certain aspects of an assignment. Thus, linkages between expectancy-value components (VIE) will work better for those students who perceive a higher control over their academic activities.

Current Study

Based on the discussion above, it is maintained that the likelihood of social loafing will be higher when perceptions relating to expectancy, instrumentality, and valence are low. Alternatively, when a student perceives that his or her efforts would lead to a higher level of performance, the performance will be appropriately rewarded, and values those rewards, the occurrence of social loafing would decline. Additionally, perceptions of inequities and low control would also contribute to social loafing behavior. More specifically, the following hypotheses are proposed:

- a. A student's social loafing behavior is inversely related to his/her effort expectancy. Alternatively, the greater the effort expectancy, the lower the level of social loafing behavior.
- b. A student's social loafing behavior is inversely related to his/her instrumentality. Alternatively, the greater the instrumentality, lower the level of social loafing behavior.
- c. A student's social loafing behavior is inversely related to his/her valence (or value attached to rewards). Alternatively, the greater the value attached to rewards provided, the lower the level of social loafing behavior.
- d. A student's social loafing behavior is inversely related to his/her effort motivation. Alternatively, the greater the effort motivation, the lower the level of social loafing behavior.
- e. A student's social loafing behavior is directly related to perceived inequities in relation to his/her group member's contributions. Alternatively, the greater the perceived inequities, the greater the social loafing.
- f. Social loafing behavior will be lower when a student perceives a high control over his/her academic activities.

METHOD

Sample and Data Collection

Marketing research students at a major state university provided the sample (n=138) for this study. Marketing research course is a required part of the curriculum at this university and four course sections are offered each semester to accommodate student demand. Using a quasi-experimental approach, the total sample size was divided into two sub-samples (two course sections in each sub-sample). First sub-sample was treated as a high effort expectancy, high instrumentality, and high valence condition. At the very beginning of the class,

student teams (research project groups) consisting of 4 to 5 members were formed. Students were then given written and oral guidance (through the course syllabus). Through carefully worded instructions and carefully planned class discussion by the instructor, students were told about high effort expectancy, instrumentality, and valence conditions. Throughout the semester students were reminded of these conditions, especially at the beginning of each major project assignment, to insure that students understood that if they expended higher level of effort it was likely to lead to higher level of performance on group project assignments. Further, a higher level of performance was likely to be rewarded with high level grades. The instructor assured them that if they demonstrated a high level of effort, the instructor would do everything to guide them to perform at a higher level and then a higher level of performance would be rewarded with a higher grade. Students were told that not all students in a group will receive the same grade. The individual project grade will be weighted based on how members in a group evaluate each other based on specific criteria. This was done to insure that student understood that a social loafer may receive a lower project grade while the other members may get a higher grade based on a higher level of contribution. This then likely increased the desirability of the reward or individual grade. The other two sections of the marketing research class were treated as status quo groups in that no clear guidance of effort expectancy and instrumentality were provided (low effort expectancy, instrumentality, and valence condition).

Measures of Variables

Effort Expectancy (E): The measure of effort expectancy was obtained by using two items (Walker, Churchill, and, 1977). These two items were stated in the *chances in 10 format* and asked students to indicate the probability (chances in 10) for the following statements:

The effort you expend on project assignments would lead to → good performance on these assignments.

The effort you expend on group activities would lead to → good performance on group assignments.

The scores on these two items were summed to obtain the expectancy measure.

Instrumentality (I): The instrumentality component was also measured by using a “chances in 10 format.” Students were asked to estimate chances in 10 that “good performance,” would lead to good project outcomes. Specifically, two outcomes (assignment grades and group member evaluations) were identified. A composite score was obtained by summing two instrumentality responses.

Valence (V): Importance of two rewards – project assignment grades and group member evaluations were measured using a 10-point numerical scale ranging from Not at all important to Very important.

Control (C): The degree of perceived control that a student perceived over his/her group activities was measured by using a ten point (multi-item) bipolar scale ranging from complete control to no control.

Effort Equities/Inequities (E/I): A bipolar format used by Vecchio (1981) was utilized for the measurement of equity/inequity perceptions. A number of 7-point scales such as the following were utilized:

“Compared with all other students in my group and an average level of group effort, effort level of _____ (student name) on the following activities was...”

Much more							Much less
than equitable	_____	_____	_____	_____	_____	_____	than equitable
	+3	+2	+1	0	-1	-2	-3

Activities included Exploratory Research, Survey Instrument Design, Collecting Data, Data Analysis, and Contribution in group meetings. A composite score for the perceived equity/inequity was then computed.

Social Loafing (SL): An instrument designed to measure social loafing was administered in each group. Group members in each group were asked to rate all members of the group except the rater himself or herself. Such ratings were obtained on a 10 point scale ranging from Poor to Excellent on four behavioral criteria that have shown to relate to social loafing behavior. These criteria included attending group meetings, quality of input, sharing of responsibility, and contribution toward group cohesiveness. Ratings across four items were summed together and the aggregate score was used as a measure for social loafing behavior. These items were reverse coded where a high score reflected a higher level of social loafing and vice versa.

Analysis and Results

To assess internal consistency reliability of scales, Chronbach alpha reliability estimates were computed for all variables. These measures varied from a low of .72 for instrumentality to a high of .87 for social loafing. In general, alpha estimates between .6 and .8 are considered appropriate for most research purposes (Nunnally 1967). Thus, the scales used in this study can be considered relatively reliable.

Relationships between Motivational Components (EIV) and Social Loafing

Tables 1 and 2 show the regression results involving both the high and status-quo VIE conditions respectively. In both regression models, effort expectancy, instrumentality, and valence were treated as the predictor variables whereas social loafing was treated as the criterion variable. All beta coefficients were negative and were shown to be statistically significant in both conditions. However, beta coefficients were of much higher magnitude in high VIE condition. The highest negative beta coefficient ($-.63, p \leq .001$) was between the instrumentality component and the social loafing behavior in the high motivational (EIV) group. This finding shows that instrumentality plays the most important role in reducing the phenomenon of social loafing behavior. Similarly, R^2 value of .52 was much higher for the high EIV condition than R^2 value of .31 for the status-quo EIV condition further reinforcing the contention that when a clear and forceful guidance is provided to students about how their efforts can lead to a higher level of performance and that higher level performance will result in higher level of desirable outcomes, the likelihood of social loafing behavior is likely to decline significantly.

Table 1
Effects of Motivational Components (VIE) and Perceived Inequity on Social Loafing
(High VIE Group)

Predictor Variables	Beta Coefficients	Significance Level
Expectancy	-.44	.001
Instrumentality (I)	-.63	.001
Valence (V)	-.39	.001
Motivation (M)	-.48	.001
Perceived Inequity (E/I)	.35	.01
R ² =.52, p=.00		

Table 2
Effects of Motivational Components (VIE) and Perceived Inequity on Social Loafing
(Status-quo VIE Group)

Predictor Variables	Beta Coefficients	Significance Level
Expectancy (E)	-.24	.05
Instrumentality (I)	-.35	.01
Valence (V)	-.21	.05
Motivation (M)	-.28	.01
Perceived Inequity (E/I)	.49	.001
R ² =.31, p=.01		

The combined motivation construct, based on the product of effort expectancy, instrumentality, and valence also showed a high negative linkage with social loafing. This linkage was significantly higher ($\beta = -.48$) for the high EIV condition where linkages between effort and performance, and performance and rewards were clearly and forcefully identified by the instructor. These findings suggest that instructors can significantly reduce the phenomenon of social loafing by increasing student motivation through influencing expectancy and instrumentality components of student motivation.

Results also support the hypothesis relating to perceptions of inequities in effort expended by group members and social loafing. The relationship was significantly higher in the status-quo EIV group ($\beta = 0.49$) as compared to the high EIV group ($\beta = 0.35$). This suggests that when a student feels that other members of the group are not equitably contributing to different aspects of group project, they may also shirk their responsibility to perform their share of the work needed and thus further compounding the problem of social loafing. Results indicate that inequity perceptions are more likely to exist in low motivational groups where EIV linkages are not clearly demonstrated by the instructor.

High versus Low Control Students and Social Loafing

Table 3 shows mean scores for social loafing under high/low control conditions. Results show that students' tendency for social loafing decline when they perceive high control over their academic activities. Results lead to similar conclusions under both high and low EIV conditions. Social loafing behavior was the lowest under high control and high EIV conditions. Findings suggest that when a student perceives a greater degree of control in a classroom environment and instructors offer clear guidance regarding EIV linkages, social loafing behavior is likely to be low.

Table 3
Social Loafing under High versus Low
Control Conditions

	High Control	Low Control
High VIE Condition*	3.38	6.15
Low VIE Condition*	4.62	6.94

*Mean differences are significant at $p \leq .05$ level.

Social loafing was the highest in low control and low EIV conditions, suggesting that when a student feels lack of control in a classroom environment and EIV linkages are not clear, social loafing behavior is likely to be high. An independent-sample t-test indicated that mean differences for social loafing between high control and low control groups were statistically significant ($p \leq .05$), further supporting the hypothesis.

CONCLUSIONS

The main focus of this study was to examine the role of motivational components as modeled by the expectancy-value theory and inequity perceptions in predicting social loafing behavior among students. Additionally, we examined social loafing under high versus low perceived control conditions. Findings of this research are encouraging as all of the hypotheses were empirically supported. The most important finding of this study is that the instrumentality component of the expectancy-value model is the most influential predictor of the student social loafing behavior. In collective settings, the social loafing behavior will be at the lowest when an instructor can demonstrate a clear linkage between outstanding performance and corresponding rewards (e.g., grades). More specifically, the more the student sees that a higher level of performance will be clearly rewarded by higher level of reward or outcome, his or her social loafing behavior is likely to be significantly low. At the same time, effort expectancy also plays a significantly important role in reducing social loafing. Accordingly, when a student perceives that his or her efforts at a higher level are likely to lead to a higher level of group performance, social loafing behavior is likely to decline. Furthermore, if a student attaches a greater desirability (value) to rewards offered, the likelihood of social loafing will be low as well.

An important finding of this study is that the influence of expectancy-value model components is likely to be significantly greater in a situation where the instructor clearly identifies and demonstrate expectancy and instrumentality linkages to students. In such a condition, all components (EIV) of expectancy-value model are combined together to produce a higher level of motivation and can significantly reduce social loafing behavior.

Social loafing behavior is likely to be high when students perceive inequities in efforts by other group members. Alternatively, when a student feels that other member(s) of the group are putting in a low level of effort and receiving the same reward (e.g., grade), their social loafing behavior is likely to increase.

In addition, results clearly indicate that social loafing behavior is strongly linked to high versus low control perceptions. As findings show, in conditions where clear guidance was provided versus when not provided by the instructor about VIE linkages, social loafing behavior was low under a high control situation as compared to a low control situation.

Implications

The results based on this study are encouraging as they suggest some important implications for marketing instructors to reduce or even eliminate social loafing in marketing group project environments. Specifically, the following implications are suggested:

- Instructors should provide a clear guidance that makes students see that a greater effort would lead to a higher level of performance. This should be done forcefully and repeatedly over an academic term so that students can see the linkage between effort and performance (expectancy) clearly. For example, an instructor can provide clear guidelines on Blackboard program to show students what specific steps should be followed leading up to a high quality project assignment. Instructors can follow through the tracking device that shows if all students have read posted guidelines. These guidelines should also be discussed in the classroom and students quizzed to insure that students clearly understand the process that would lead to a higher quality assignment. Instructors can also allocate part of the class period to entertain questions relating to the process and how certain part of the assignment need to be carried out to make the assignment a quality assignment. Instructors should make themselves available outside the classroom (i.e., in office hours or through electronic media) to help clarify questions as they arise during the process of working on specific assignments. Such steps taken would have a higher probability that students will perceive that a greater amount of effort expended would lead to a higher quality assignment (high effort expectancy).

- Instructors should make a noticeable effort in making sure that students clearly see that a greater level of performance on assignments will be rewarded with outcomes that individuals value. This study, clearly demonstrates the linkage between high level of performance and high level of rewards has the most significant influence on student motivation to perform and thus reducing the phenomenon of social loafing. Again, this can be accomplished by providing clear rules and guidelines that will be used to evaluate the quality of assignments. These rules and guidelines can further be discussed in a classroom setting to insure that students clearly

understand the specifics. While grading assignments, the instructor should provide detail comments so that students know how and why they received a specific evaluation. Instructors should also provide comments to suggest what must be done to improve the quality of current or future assignments. More importantly, instructors should clearly demonstrate that they are using an assignment evaluation system that clearly distinguishes between high quality and low quality assignments. In other words, students should not feel that an instructor is capricious and gives similar grades to all assignments whether they are of low or high quality. Instructors should be careful in maintaining consistency in their evaluation process to reinforce perceptions that low quality assignment will receive lower grades and high quality assignment will be highly rewarded.

- In providing rewards, instructors need to remain cognizant and offer rewards that are valued by students. Obviously, such rewards would include letter grades or points that would contribute to a specific level of grade. However, these are extrinsic rewards and instructors should not forget the role intrinsic rewards can play in enhancing student motivation. Intrinsic rewards can include specific comments on assignments suggesting a high quality work, a casual mention of quality of assignments to a particular student or a group of students, or a mention of high quality assignments in the class. There is ample evidence in sociological research demonstrating that in many situations intrinsic rewards can play a much stronger role in enhancing individual motivation and thus reducing the phenomenon of social loafing.

- Additionally, instructors have to work diligently in developing guidelines in rewarding student performance that are perceived to be fair and equitable. As findings clearly indicate perceptions of inequities clearly lead to an increased tendency of social loafing behavior. An effective approach can be to develop specific criteria to assess contribution to group project. Individual group members can then be asked to rate the performance of each group member on these criteria. Weighted scores can then be used to adjust grades of individual members in a group. This can be seen as a fair and equitable process by students as grades of individuals are adjusted based on their contribution and all group members (loafers and non-loafers) do not necessarily receive the same grade.

- Instructors also need to work toward designing assignments and other group activities in a way that students perceive a greater degree of control in carrying out the needed tasks. Results of this study have clearly demonstrated that students' perceptions of a lack of control over their academic activities can significantly increase phenomenon of social loafing. Instructors can help arrange all the resources that students need to enhance the feelings of increased control over project working environment. In addition, instructors can maintain flexibility in making themselves available (in office or through electronic media) to help students as they work on assignments related to their projects to enhance the perception of increased control.

Future Research Directions

Though the results of this study are promising, findings based on this study can be strengthened with research involving additional dimensions. First, the role of an individual's ability in moderating expectancy and instrumentality linkages can be examined. A lack of ability or perceived ability may make individual less optimistic that his/her efforts would lead to a higher level of performance (low effort expectancy), thus contributing to social loafing behavior. Additionally, the role of intrinsic versus extrinsic rewards in motivating individual students and thus reducing social loafing can also be examined. In motivational literature it has been suggested that in many settings intrinsic rewards (e.g., recognition by peers, feelings of accomplishment) can be stronger motivators than extrinsic rewards (e.g., project grade). Further, more representative samples across different marketing/business classes can be used to examine the role of expectancy-value components in controlling social loafing behavior and to enhance the generalizability of current findings.

It will also be useful to conduct such a study with a data set obtained from a larger sample with a longitudinal design to enhance the generalizability of findings.

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