Journal of MultiDisciplinary Evaluation
Volume 19, Issue 45, 2023

UPDATED VERSION
September 2023

JMDE
Journal of MultiDisciplinary Evaluation

ISSN 1556-8180
http://www.jmde.com

The Relationship Between Employee Motivation and Evaluation Capacity in a Community-Based Education Organization

Anuradha Sen
Virginia Tech

James C. Anderson
University of Georgia

Thomas Archibald
Virginia Tech

Tiffany Drape
Virginia Tech

Background: Evaluation capacity building (ECB) has gained popularity among organizations due to the increased importance of accountability and organizational effectiveness. While the ECB literature has occasionally addressed the notion of motivation, it has usually been in terms of motivation to do or use evaluation (Clinton, 2014; Taylor-Ritzler et al., 2013); this study sought to ascertain whether general overall employee motivation in an organization is itself related to evaluation capacity. By better understanding this relationship, those who are involved in administering, implementing, evaluating, or researching ECB can be better equipped to understand one of the "mediating conditions" or "antecedent conditions" (Cousins et al., 2014) affecting an organization's ability to do and use evaluation and, in turn, can more efficiently and effectively craft their ECB work.

Purpose: The purpose of this study was to explore the relationship between (a) employee motivation and individual evaluation capacity, (b) employee motivation and evaluative thinking, and (c) evaluation capacity and evaluative thinking.

Setting: The study focused on the Cooperative Extension System, a nonformal community-based education organization linked to public land-grant universities throughout the United States. Specifically, this study drew participants from two state Extension systems, Virginia and Maryland.

Intervention: Not applicable.

Research Design: This quantitative study used a descriptive correlational design (Creswell, 2003) to uncover the relationship between the variables: motivation and evaluation capacity, motivation and evaluative thinking, and evaluation capacity and evaluative thinking.

Data Collection and Analysis: To investigate the relationship between the factors of interest (motivation, evaluation capacity, and evaluative thinking), three instruments were used: the Multidimensional Work Motivation Scale (MWMS), the Evaluation Capacity Assessment Instrument (ECAI), and the Evaluative Thinking Inventory (ETI). STATA/MP 13.1 quantitative software was used to analyze the collected data.

Findings: Employees with lower overall motivation in doing their work have lower evaluation capacity, and employees with higher motivation that is triggered by no external means but driven by internal factors have higher evaluation capacity.

Keywords: *evaluation; evaluation capacity building; evaluative thinking; work motivation; community-based organizations*

Introduction and Background

Program evaluation has become more important for community-based organizations in recent years as they increasingly face the need to provide information on the quality of their services and outcomes to governments, donors, and funding agencies. In a related way, evaluation capacity building (ECB) has gained popularity among organizations due to increased awareness of the importance of accountability and organizational effectiveness. Conceptual research on ECB has progressed rapidly over the past decade, accompanied more recently by calls for more empirical research on the topic (Preskill, 2014; Suarez-Balcazar & Taylor-Ritzler, 2014; Wandersman, 2014).

In this paper, we contribute to answering those calls by presenting the processes and results of a quantitative study on evaluation capacity in the context of a community-based education organization. In particular, we examine the relationship between general employee motivation and evaluation capacity. This question is salient because, while the ECB literature has occasionally addressed the notion of motivation, it has usually been in terms of motivation to do or use evaluation (Clinton, 2014; Taylor-Ritzler et al., 2013); we seek to ascertain whether general overall employee motivation (intrinsic and/or extrinsic) is itself related to evaluation capacity. By better understanding this relationship, those who are involved in administering, implementing, evaluating, or researching ECB can be better equipped to understand one of the "mediating conditions" or "antecedent conditions" (Cousins et al., 2014) affecting an organization's ability to do and use evaluation and, in turn can more efficiently and effectively craft their ECB work.

Evaluation Capacity Building

Although there are various definitions of ECB, all who have written on this topic agree on the fact that ECB is about developing the skills, knowledge, and attitudes of organizational members to engage in sustainable evaluation practice (Preskill & Boyle, 2008b). According to Labin et al. (2012) "Evaluation capacity building (ECB) is an intentional process to increase individual motivation, knowledge, and skills, and to enhance a group or organization's ability to conduct or use evaluation" (p. 308). The factors involved in ECB are sustained organizational change, individual learning, and program processes and outcomes (Compton et al., 2002; Cousins et al., 2014; Preskill & Boyle, 2008a). ECB in an organizational context may be driven by internal, external, or combined factors. Labin et al. (2012) succinctly summarized Preskill and Boyle's (2008a) three important factors that must be considered while engaging in ECB: (a) motivation for ECB, (b) assumptions and expectations about ECB, and (c) identification of goals and objectives for ECB. The complex and dynamic ECB processes in an organization are intended to lead to the routine implementation of evaluation (Cousins et al., 2007; Duffy et al., 2007), which is an important consideration for improving an organization's performance and productivity. This regular evaluation practice can be successfully implemented by building the evaluation capacity of employees; staff members can be equipped with the ability to regularly perform and document all the work that would otherwise be done by an external evaluator (Milstein et al., 2002; Preskill & Boyle, 2008; Taut, 2007). Sobeck and Agius (2007) conducted a 5-year capacity building initiative with nonprofits, and observed improved management knowledge and enhanced perceptions of the visibility of the organization among the employees. They also recommended more research on the effectiveness of ECB initiatives to better understand the process that supports the efforts made by the organizations and the impact it makes on their sustainability.

Taylor-Powell et al. (2008) discussed the role of ECB in the evaluation of Cooperative Extension programs. The processes associated with ECB in the context of Extension have been described as a three-component framework comprising organizational environment, resources and supports, and professional development, with the connection between individual, team, program, and organizational change and ECB presented in the form of a logic model.

Evaluative Thinking

As the practice of ECB has become more widespread, the construct of evaluative thinking (ET) has also gained importance in recent times. In particular, ET has become an important factor in promoting evaluation capacity and high-quality evaluation practice. To implement ECB practices at the grassroots level of an organization, it is helpful to intentionally inculcate ET among individual employees and throughout the organization's culture. Though many researchers define ET in different ways, in the present study, the following definition proposed by Buckley et al. (2015) has been adopted:

> Evaluative thinking is critical thinking applied in the context of evaluation, motivated by an attitude of inquisitiveness and a belief in the value of evidence, that involves identifying assumptions, posing thoughtful questions, pursuing deeper understanding through reflection and perspective taking, and informing decisions in preparation for action. (p. 378)

Patton (2018) reviewed the historical background of evaluative thinking as an approach to evaluation practice. He highlighted the importance of evaluative thinking in times of critical and difficult societal circumstances. Vo et al. (2018) reviewed scholarly literature on evaluative thinking published between 1960 and 2016 to build a conceptual model with four thematic domains: values, valuing, cognition, and application. Archibald, Sharrock, et al. (2018) described an ECB initiative designed for community development practitioners to help foster collaboration, learning, and adaptive management. Incorporating valuable knowledge from adult education—which is based on critically reflective practice and critical theory—can also add to the value of current perspectives in evaluative thinking (Archibald, Neubauer, & Brookfield, 2018). Schwandt (2018) suggested the relevance of a collaborative approach to evaluative thinking. Elucidating his ideas with an example of boundary setting in evaluation, he sheds light on a different perspective of evaluative thinking and, along with the individualistic approach, tries to make a case for evaluative thinking as a collaborative social practice.

ET is an important concept from the perspective of an organization that is trying to instill evaluation capacity in its employees. From their perspective in the philanthropic domain, Baker and Bruner (2006) conducted a study, the Evaluative Thinking in Organizations Study (ETHOS), to understand the relationship between evaluation capacity and the use of evaluative thinking in organizational contexts and how it can increase effectiveness. Similarly, Buckley and Archibald (2011) developed the Evaluative Thinking Inventory (ETI), a self-report survey tool that reflects recent advances in the operationalization of the construct of ET. Thus, if an organization goes through an ECB process, then the use of ET, which is linked with organizational effectiveness, should be evident (Baker & Bruner, 2006).

Motivation

As stated in the introduction, an important topic in the field of organizational development that has implications for evaluation capacity is employee motivation. Motivation refers to personal/internal processes by which individuals act to initiate and sustain goal-oriented tasks (Schunk & DiBenedetto, 2020). Some outcomes of the motivational process are persistence, choice, goal-attainment, and behavior regulation, to name a few. Because motivational processes are complex and context specific, there are a myriad of theories and constructs used to operationalize human motivation in empirical investigations (Kuhl et al., 2021). Within the area of workforce motivation, studies on achievement motivation, power motivation, and self-regulated motivation have been most prevalent in the literature.

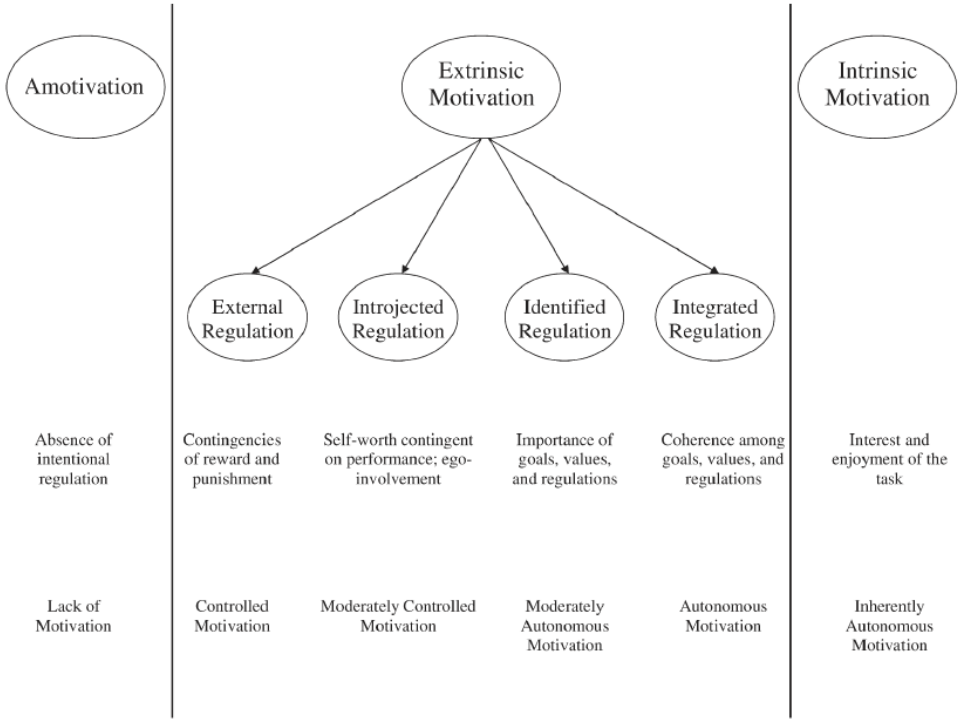
Workforce motivation is considered to be one of the most important aspects related to achievement of organizational goals. Employee work motivation affects employee performance and consequently has a positive impact on achieving organizational goals (Aliyyah et al., 2021; Riyanto et al., 2021). Motivated employees help organizations to grow and thrive in a competitive and dynamic environment. In the 1920s, Elton Mayo and Fritz Roethlisberger conducted the Hawthorne studies, where they discovered employees are not only motivated by monetary incentives but, rather, their behavior is linked to their attitudes (Dickson, 1973). The Hawthorne studies revealed that employee performance depends on various social issues and job satisfaction, which in turn revealed that the needs and motivations of employees should be an utmost priority for managers (Bedeian, 1993). The Hawthorne studies led to more research on employee motivation and later to five approaches to understanding motivation: Maslow's need-hierarchy theory, Herzberg's two-factor theory, Vroom's expectancy theory, Adams's equity theory, and Skinner's reinforcement theory (Bedeian, 1993). Maslow's (1943) need-hierarchy theory is based on five levels of employee needs: physiological, safety, social, ego, and self-actualizing. According to Vroom's (1964) theory, employee motivation is related to rewards and the relationship between motivation and rewards is directly proportional. Adams's equity theory is based on employee equity; that is, the presence of equity among the employees will motivate them to work more efficiently, as the tension created among them is directly proportional to the magnitude of the inequity. (Adams, 1965). Later, Robbins (1993)

stated that motivated employees are driven by tension caused by an unsatisfied need, leading them to pursue certain goals that, when reached, can reduce or release the tension. Skinner's reinforcement theory states that any behavior of the employees resulting in positive outcomes should be reinforced by the management, whereas any behavior resulting in negative output should be addressed by management. Lindner (1998) conducted a study to investigate the factors that motivated employees in doing their work. According to the author, interesting work with promotions, job enlargement, higher pay, etc. can highly motivate an employee. Different theories on motivation have been proposed by researchers over the years. Most of them are unanimous about the necessity of action and an objective.

Among the various theories, the one we use in this study is self-determination theory (SDT), a broad framework that expounds upon the various regulatory styles that contribute to an individual's drive to engage in productive behaviors within the workplace (Deci & Ryan, 1985; Ryan & Deci, 2020). SDT assumes that humans are ever-evolving organisms who are innately driven to participate in activities that satisfy psychological needs for (a) a sense of ownership over their behaviors (autonomy), (b) mastery of skills and the opportunity to use these skills in meaningful ways (competence), and (c) authentic connections with others within their place of work (relatedness; Anderson et al., 2018). In the context of the workplace, SDT can help analyze factors that facilitate or undermine the motivation behind a particular activity or performance (Deci & Ryan, 2000). According to Deci & Ryan (1985), the three types of motivation are amotivation, extrinsic motivation, and intrinsic motivation. These three types of motivation fall on a continuum from nonregulated behaviors to self-regulated behaviors based on the degree to which the three psychological needs are met (Anderson et al., 2018; Deci & Ryan, 1985).

As Deci and Ryan (1985) define the terms, amotivation is considered the absence of motivation within an individual, and extrinsic motivation is the type of motivation that is triggered or driven by an external factor like reward, incentive, punishment, promotion, etc. Intrinsic motivation, on the other hand, is driven by internal factors such as personal interest, attitude, etc. "Intrinsic motivation is the most important type of motivation for employee well-being, attitudes and behavior" (Van den Broeck et al., 2021, p. 2). Central to self-determination theory (see Figure 1), extrinsic motivation varies in the degree to which it is autonomous or controlled (Gagné & Deci, 2005).

Figure 1. Self-Determination Continuum



Note. From "Self-Determination Theory and Work Motivation," by M. Gagné and E. L. Deci, 2005, *Journal of Organizational Behavior*, *26*(4), pp. 331–362. Copyright 2005 by M. Gagné and E. L. Deci. Used with permission.

Deci et al. (1989) tested self-determination theory in the context of the relationship between managers and their subordinates in 23 major organizations. Data obtained from managers and subordinates showed a correlation between the managers' interpersonal orientations and the subordinates' self-determination variables, though the magnitude of the relationship between the above two sets of factors varied with different corporate climates. An intervention with the intention of developing the ability of managers to support the self-determination of subordinates had a positive impact on the orientation of the managers. By focusing on the importance of job satisfaction in improving the performance of the employees of an organization, Tietjen and Myers (1998) chronicled the findings of motivational theorists in published literature on job satisfaction and its relationship with motivation. After explaining Herzberg and Locke's theories, the authors claim that an understanding of these theories can help managers to better understand and facilitate job satisfaction. A number of measuring scales grounded in SDT have been proposed by researchers for analyzing and assessing the motivation of employees in an organization. Among them, the Multidimensional Work Motivation Scale (MWMS), proposed by Gagné et al. (2015), analyzes work motivation at the domain level. This scale is the result of improvements made in different proposed measuring scales over the years. Johari and Jha (2020) used this scale to study the impact of work motivation on employee productivity and concluded that an increase in motivation of the employees substantially increases their productivity and retention in an organizational setting.

From the review of the literature presented above, it is evident there has been no study examining the relationship of employee motivation, evaluation capacity, and evaluative thinking, despite the logical and potentially influential linkages between these concepts. Thus, we sought to learn about the connection and potential correlation between the workplace motivation of

employees and their respective evaluation capacity and evaluative thinking.

Purpose and Research Question

The purpose of this quantitative study was threefold. We sought to explore the relationship between (a) employee motivation and individual evaluation capacity, (b) employee motivation and evaluative thinking, and (c) evaluation capacity and evaluative thinking, in the context of Cooperative Extension in two states: Virginia and Maryland. In operation for over a century, Cooperative Extension is a nationwide, non-credit educational network operated through the nation's land-grant university system. It addresses public needs by providing nonformal education and learning activities to farmers, ranchers, communities, youth, and families throughout the nation (Wang, 2014).

In examining the relationship between the abovementioned factors, this study also controlled for whether the nature of the relationship varied based on contextual factors such as state (whether it held true across Virginia and Maryland); gender (whether it looked different for men than for women); program area (whether it was true across positive youth development programs [4-H], agriculture and natural resources [ANR] programs, and family and consumer sciences [FCS] programs); time spent in job (whether it varied depending on the duration of stay of the employees in the organization); and position (whether it was true for agents, administrative staff and specialists).

Evaluation capacity and evaluative thinking play an important role in establishing better standards of evaluation practice in an organization, thus increasing the organization's overall effectiveness. We aimed to shed light on whether employee motivation has a role to play in good evaluation practice. In research on ECB, evaluation capacity and evaluative thinking are conceptually related, but no research has been conducted as of yet to look at the empirical relation among these variables and motivation. As such, this study had implications for both practice and research in the field of evaluation.

The research questions guiding this study included:

1. What is the relationship between employee motivation and individual evaluation capacity?
2. What is the relationship between employee motivation and evaluative thinking?
3. What is the relationship between employee evaluation capacity and evaluative thinking?

Methods

We adopted a quantitative methods research design, a descriptive correlational design (Creswell, 2003), to uncover the relationship between the variables: motivation and evaluation capacity, motivation and evaluative thinking, and evaluation capacity and evaluative thinking. We aimed to understand if the level and type of employee work motivation in an organization can predict people's evaluative thinking and evaluation capacity. Specifically, we designed the study to answer the three research questions, and hence to find any existing relationships between each of the variables. According to Creswell (2003), in quantitative studies, the relationship among the variables is usually posed in terms of questions or hypotheses. As such, we adopted a quantitative research design, using surveys. Survey research design is well-suited to describe trends and identify individuals' attitudes, opinions, and beliefs (Creswell, 2012). We used survey instruments to collect data from two different Cooperative Extension state systems: Virginia Cooperative Extension and University of Maryland Extension. We created the survey using Qualtrics by adopting two pre-existing surveys and also by adapting one pre-existing and valid survey, based on the items that pertain to the research questions of this study. The survey also had demographic questions such as state, gender, role, program area, and years of service. The study proposal was sent to both of the Extension administrations (Virginia and Maryland) beforehand, to get approved. After being approved by both states, the proposal was sent through the Virginia Tech Institutional Review Board for approval. The data collection process took place for two weeks, followed by data analysis. The final step of the study was to interpret the results and provide the implications and future research scope.

This study used three instruments to collect data: the Multidimensional Work Motivation Scale (MWMS), the Evaluation Capacity Assessment Instrument (ECAI; Taylor-Ritzler et al., 2013), and the Evaluative Thinking Inventory (ETI; McIntosh et al., 2020). Specifically, the MWMS was adopted to measure the level of motivation of employees. The ECAI was adapted to assess the evaluation capacity of employees using the items that pertain to the research questions. The ETI was adopted to measure the evaluative thinking of employees. Additionally, participants were asked to provide demographic information regarding state, gender, role, program area, and years of service.

The reliability test was done on all the three scales—ECAI, ETI, and MWMS—using Cronbach's

alpha. The Cronbach's alpha is used to assess the internal reliability of the items used in a scale (Gliem & Gliem, 2003). The Cronbach's alpha reliability coefficient usually ranges from 0 to 1, and the items in a scale are understood to have more internal consistency if the value of the coefficient is nearer to 1. Cronbach's alpha for the scale adapted from ECAI is 0.9321. The motivation scale (MWMS) was tested for reliability once considering the entire scale with proper reverse coding and again to test for the three subscales of motivation. McIntosh et al. (2020) provided the evidence of internal consistency for the ETI showing alpha reliabilities. Table 1 presents the mean, standard deviation, Cronbach's alpha, skewness, and kurtosis for each of the three scales. The skewness and kurtosis of the ECAI scale is above .05, which implies that the scale is normally distributed.

Table 1. Reliability Statistics for All Three Scales

Scale		# of items	*N*	Mean	*SD*	Cronbach's alpha	Skewness	Kurtosis	Minimum	Maximum
ECAI		31	70	3.0857	0.4412	0.9321	0.8106	0.9683	1.9355	4
ETI		18	70	4.516	0.6517	0.9067	0.4155	0.7297	2.6667	5.8889
MWMS		19	70	4.7406	0.6577	0.8240	0.2694	0.2408	2.6842	6.1052
	Amotivation	3	70	1.2762	0.7613	0.9264	0.0000	0.0000	1	5.3333
	Extrinsic	13	70	4.1022	0.7924	0.7909	0.8859	0.5939	2.3846	5.7692
	Intrinsic	3	70	5.5238	1.4069	0.9568	0.0003	0.0489	1	7

Results and Discussion

As the study was aimed at investigating the relationship between the factors (motivation, evaluation capacity, and evaluative thinking), Pearson product-moment correlation coefficients were computed to assess the relationships between motivation and evaluation capacity, motivation and evaluative thinking, and evaluation capacity and evaluative thinking. To calculate the correlation coefficients, the motivation scale was divided into three subscales. As discussed earlier, amotivation is referred to as the absence of motivation, whereas intrinsic and extrinsic motivation are the types of motivation driven by internal and external factors, respectively. The MWMS scale used in this study was divided into subscales focused on these three types of motivation for further analysis. Pearson product-moment correlation coefficients were computed for the three types of motivation with evaluation capacity and evaluative thinking. Table 2 represents the correlation coefficient for the three types of motivation, evaluation capacity, and evaluative thinking. There was a statistically significant negative association between amotivation and evaluation capacity (r = -0.2826). There was a weak, negative correlation between amotivation and evaluative thinking (r = -0.1854). There was also a weak, negative correlation between extrinsic motivation evaluation capacity, whereas there was a positive but nonsignificant correlation between extrinsic motivation and evaluative thinking. A strong, positive, statistically significant relationship between intrinsic motivation and evaluation capacity (r = 0.3069) was found. Also, there was a positive but nonsignificant correlation between evaluative thinking and intrinsic motivation.

Table 2. Correlation Coefficient Matrix for Three Types of Motivation with Evaluation Capacity and Evaluative Thinking

	Amotivation	Extrinsic	Intrinsic	Evaluation capacity	Evaluative thinking
Amotivation	1.0000				
Extrinsic	-0.0850	1.0000			
Intrinsic	-0.4437*	0.1656	1.0000		
Evaluation capacity	-0.2826*	-0.0533	0.3069*	1.0000	
Evaluative thinking	-0.1854	0.1525	0.0986	0.6365*	1.0000

*Statistically significant ($p < 0.05$).

The descriptive statistics in Table 3 provide an illustration of the basic features of the data collected and for simplification of the variables in the succeeding analysis. In Virginia, two of the survey respondents indicated their roles as "other"; we coalesced these responses into the category "tenure track." Two of the survey respondents indicated their program areas as "other," and we coalesced those responses into the most common program area, Agriculture and Natural Resources. Both of these decisions were made based on a good understanding of the Cooperative Extension System.

Table 3. Descriptive Statistics

Variable	State		Gender		Program area			Role	
	Virginia (38 obs)	Maryland (32 obs)	Male (21 obs)	Female (49 obs)	4-H (22 obs)	ANR (34 obs)	FCS (14 obs)	Agent (42 obs)	Specialist (28 obs)
Amoti-vation	1.298	1.25	1.175	1.32	1.333	1.206	1.357	1.405	1.083
Extrinsic motivation	3.93	4.31	4.17	4.07	4.3	4.14	3.71	4.04	4.20
Intrinsic motivation	5.535	5.510	5.762	5.422	5.455	5.441	5.833	5.508	5.548
Evaluation capacity	3.050	3.128	3.014	3.117	3.044	3.147	3.002	3.03	3.169
Evaluative thinking	4.390	4.634	4.442	4.527	4.452	4.601	4.337	4.402	4.651

The means presented in Table 3 do not vary much across the states, genders, program areas, and roles for all the three types of motivation, evaluation capacity, and evaluative thinking. A regression analysis was conducted with the subscales of motivation and the evaluation variables. Due to the small sample size and the lack of bivariate relationships of gender, state, program area and role with the focal variables, demographic controls are excluded from the following reported regression results. Table 4 represents the regression output for the three types of motivation: amotivation, extrinsic motivation, and intrinsic motivation on evaluation capacity and evaluative thinking.

Table 4. OLS Regression on Motivation Subscales

Variable	Model 1: Amotivation[+]	Model 2: Extrinsic motivation[+]	Model 3 Intrinsic motivation[+]
Evaluation capacity	-0.47 (0.26)	-0.45 (0.28)	1.31 (0.48)**
Evaluative thinking	-0.11 (0.17)	0.38 (0.19)*	-0.35 (0.32)
Constant	2.8 (0.69)***	3.79 (0.73)***	3.07 (1.26)*
Model *F* (*df*)	2.91 (2, 67)	2.19 (2, 67)	4.14 (2, 67)
Adjusted r^2	0.05	0.03	0.1

[+] Unstandardized regression coefficients (standard error in parentheses).

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

Additional models were estimated including all demographic variables, and the results can be found in Table 5. The first model, Model 1, pertains to amotivation with all the demographic variables, evaluation capacity, and evaluative thinking. There were no statistically significant relations among the variables. Model 2 was associated with extrinsic motivation considering all the demographic variables, evaluation capacity, and evaluative thinking. There was a negative and statistically significant result for the program area Food and Consumer Sciences (FCS), which suggested that participants in FCS were less extrinsically motivated in comparison with those in 4-H. Model 3 pertains to intrinsic motivation considering for all the demographic variables, evaluation capacity, and evaluative thinking. There were no statistically significant relations among the variables, except for the evaluation capacity, which suggests that the participants with higher intrinsic motivation have higher evaluation capacity.

Table 5. OLS Regression on Motivation Subscales

Variable	Model 1: Amotivation[+]	Model 2: Extrinsic motivation	Model 3: Intrinsic motivation[+]
Maryland	0.07 (0.21)	0.37 (0.21)	0.16 (0.37)
Female	0.12 (0.23)	-0.12 (0.23)	-0.66 (0.41)
Program area			
ANR	-0.06 (0.22)	-0.22 (0.22)	-0.3 (0.39)
FCS	-0.09 (0.27)	-0.58 (0.27)*	0.5 (0.48)
Specialist	-0.27 (0.21)	-0.11 (0.22)	-0.14 (0.39)
Service years	-0.0003 (0.01)	-0.003 (0.01)	0.01 (0.02)
Evaluation capacity	-0.47 (0.27)	-0.4 (0.28)	1.43 (0.49)**
Evaluative thinking	0.007 (0.19)	0.31 (0.19)	-0.31 (0.33)
Constant	2.73 (0.73)***	4.17 (0.74)***	2.91 (1.31)*
Model F (df)	1.02 (8, 61)	1.6 (8, 61)	1.60 (8, 61)
Adjusted r^2	0.002	0.07	0.07

[+]Unstandardized regression coefficients (standard error in parentheses)
* $p < 0.05$. $^{**}p < 0.01$. $^{***}p < 0.001$

In spite of having two strong and statistically significant correlations between the motivation subscales and evaluation capacity and evaluative thinking, the limitations of the study, such as the low response rate, are reflected in the regression tables for motivation subscales on evaluation capacity and evaluative thinking. Table 6 represents the regression output for evaluation capacity on evaluative thinking, controlling for other demographic variables.

Table 6. OLS Regression on Evaluation Capacity

Source	*SS*	*df*	*MS*	Number of obs = 70		
Model	5.69799054	7	0.813998649	*F* (7, 62) = 6.52		
Residual	7.7356953	62	0.124769279	Prob > *F* = 0.0000		
Total	13.4336858	69	0.194691099	r^2 = 0.4242		
				Adj r^2 = 0.3591		
				Root *MSE* = 0.35323		
Evaluation capacity	Coef.	Std. Err.	*t*	*P* > |*t*|	[95% Conf.	Interval]
Maryland	-0.0646849	0.0960237	-0.67	0.503	-0.2566335	0.1272638
Female	0.1256168	0.1050414	1.20	0.236	-0.084358	0.3355916
Program Area						
ANR	0.0687173	0.1013298	0.68	0.500	-0.1338382	0.2712727
FCS	0.014128	0.1251217	0.11	0.910	-0.2359868	0.2642427
Specialist	0.0779293	0.0994984	0.78	0.436	-0.1209652	0.2768237
Years of service	0.0021062	0.0049058	0.43	0.669	-0.0077003	0.0119127
Evaluative thinking	0.4160659	0.0681453	6.11	0.000	0.2798454	0.5522863
Constant	1.067916	0.3114592	3.43	0.001	0.4453176	1.690514

Discussion

The purpose of this study was to investigate the relationship between employee motivation and individual evaluation capacity in the context of a community-based organization. To conduct this study, the Cooperative Extension organizations from two different states (Virginia Cooperative Extension and University of Maryland Extension) were selected as the study population. The results of this study are summarized as responses to each of the research questions.

Research Question 1: What Is the Relationship Between Employee Motivation and Individual Evaluation Capacity? To investigate the relationship between employees' motivation and their evaluation capacity, Pearson product-moment correlation coefficients were computed for all three subscales of motivation and evaluation capacity. Table 2 shows that there were two statistically significant correlations, thus rejecting the null hypotheses pertaining to this research question. The negative statistically significant correlation between amotivation and evaluation capacity explains that absence of motivation in an employee results in less evaluation capacity. Also, from the positive and statistically significant correlation between intrinsic motivation and evaluation capacity, it can be inferred that an employee with higher intrinsic motivation has a higher evaluation capacity. It can, finally, be concluded that employees with no motivation in doing their work have low evaluation capacity, and employees with higher motivation that is triggered by no external means but driven by internal factors have higher evaluation capacity. This finding has implications for the design, implementation, and evaluation and research of ECB initiatives, which we consider in greater detail below.

Research Question 2: What Is the Relationship Between Employee Motivation and Evaluative Thinking? During the investigation of the relationship between employee motivation and evaluative thinking, Pearson product-moment correlation coefficients in Table 2 on the three subscales of motivation and evaluative thinking did not provide any significant correlation; thus, there was not enough evidence to reject the null hypotheses related to this research question. There was a negative but nonsignificant correlation between amotivation and evaluative thinking, a positive and nonsignificant correlation between extrinsic motivation and evaluative thinking, and a positive and nonsignificant correlation between intrinsic motivation and evaluative thinking. Given the small sample size of the study, there was no evidence of strong correlation between the two variables.

Research Question 3: What Is the Relationship Between Employee Evaluation Capacity and Evaluative Thinking? The concept of evaluative thinking is considered by some as the key component of evaluation capacity (Buckley et al., 2015). Though there is a conceptual relationship between evaluation capacity and evaluative thinking, before the present study there existed no empirical evidence of this relationship. Table 2 provides evidence of a positive and statistically significant correlation between the two. Thus, the null hypothesis pertaining to this research question is rejected. The regression output on the evaluation capacity and evaluative thinking controlling for demographic variables did not suggest any other statistically significant results. It could therefore be concluded that individuals with higher evaluation capacity have higher evaluative thinking and vice versa. This finding has implications for further research and practice on evaluation, a cutting-edge issue in the field of evaluation (Vo & Archibald, 2018).

Conclusions

Limitations

The most important limitation of this study was the sample size. The sample size for this study was just adequate to run the analysis. Quantitative analysis demands a large sample size to provide any strong evidence or claims. Another potential limitation of this study was an error in phrasing the question in two of the scales (the MWMS and the ETI) while sending out the survey instrument to the study participants. Specifically, we used an extra instruction stem in the MWMS survey, "Please indicate the extent of your agreement with the following statements" in addition to the correct stem "Why do you or would you put efforts into your current job? _____" which was included closer to the response options, so it is likely that the respondents understood the question correctly. For ETI, the question stem we used was "Please indicate the extent of your agreement with the following statements" whereas the correct stem or instruction was "Please read each of the statements below and check the appropriate box to indicate how often you do what is described by each statement" which was not included while administering the survey.

Implications

Despite these few limitations, this study has contributed to the knowledge base on evaluation. The conceptually related terms "evaluation capacity" and "evaluative thinking" now have empirical evidence of their relationship for the first time. The study also has the potential to make a meaningful contribution to the practice of evaluation, especially to the growing body of practitioners who are engaged in intentionally offering ECB initiatives. Based on the findings from this study, organizations engaging their employees in ECB could potentially (formally or informally) classify individuals based on the level and type of their general work motivation and target tailored ECB initiatives to them based on this enhanced understanding of the relationship between motivation and evaluation capacity. This scheme of classifying or sorting of employees has the potential not only to save money but also to increase the quality of evaluation practices and eventually increase the overall effectiveness of an organization. Organizations should also consider critical factors that might be effective at increasing employees motivation toward their work. Irrespective of the employees' type of motivation, organizations must ensure that evaluation findings and recommendations are usefully implemented, to keep up the spirit of those who participated in the practice of evaluation, as evidence of the usefulness of their evaluation efforts. On the basis of the data analysis and synthesis of the results, it can be recommended to strengthen the survey instrument with proper use of words and pilot the tool before attempting to target a larger population. Collecting data from Cooperative Extension programs in various other states could also better inform our understanding of the relationship between the factors with greater evidence.

References

Adams, J. S. (1965). Inequity in social exchange. In *Advances in experimental social psychology* (Vol. 2, pp. 267–299). Academic Press. https://doi.org/10.1016/S0065-2601(08)60108-2

Aliyyah, N., Prasetyo, I., Rusdiyanto, R., Endarti, E. W., Mardianah, F., Winarko, R., Chamariyah, Mulyani, S., Grahani, F. O., Rochman, A. S., Kalbuana, N., Hidayat, W., & Tjaraka, H. (2021). What affects employee performance through work motivation? *Journal of Management Information and Decision Sciences*, 24(1).

Anderson, J. C., Woods-Wells, T. M., Amal, T. M., Bass, R. T., & Simpson, C. Y. (2018). Examining the relationships among motivational factors and the academic achievement of students enrolled in a comprehensive agricultural education program. *Journal of Career and Technical Education*, *33*(1), 27–48. https://doi.org/10.21061/jcte.v33i1.a2

Archibald, T., Neubauer, L. C., & Brookfield, S. D. (2018). The critically reflective evaluator: Adult education's contributions to evaluation for social justice. *New Directions for Evaluation*, *158*, 109–123. https://doi.org/10.1002/ev.20319

Archibald, T., Sharrock, G., Buckley, J., & Young, S. (2018). Every practitioner a "knowledge worker": Promoting evaluative thinking to enhance learning and adaptive management in international development. *New Directions for Evaluation*, *158*, 73–91. https://doi.org/10.1002/ev.20323

Baker, A., & Bruner, B. (2006). *Evaluation capacity and evaluative thinking in organizations*. Bruner Foundation Inc.

Bedeian, T. (1993). Motivation and Leadership in Workplace. (3rd ed.). London:McGrawHill.

Buckley, J. & Archibald, T. (2011). The Evaluative Thinking Inventory. Cornell University. Retrieved from: https://static1.squarespace.com/static/5dd452abb1ab661ae7d79446/t/619e6890b6b72a66c5f6cbff/1637771408742/Cornell+ETInventory.pdf

Buckley, J., Archibald, T., Hargraves, M., & Trochim, W. M. (2015). Defining and teaching evaluative thinking: Insights from research on critical thinking. *American Journal of Evaluation*, 36(3), 375–388. https://doi.org/10.1177/1098214015581706

Clinton, J. (2014). The true impact of evaluation: Motivation for ECB. *American Journal of Evaluation*, *35*(1), 120–127. https://doi.org/10.1177/1098214013499602

Compton, D. W., Glover-Kudon, R., Smith, I. E., & Eden Avery, M. (2002). Ongoing capacity building in the American Cancer Society (ACS) 1995–2001. *New Directions for Evaluation*, *93*, 47–62. https://doi.org/10.1002/ev.41

Cousins, J. B., Goh, S. C., & Elliot, C. J. (2007, June). *Organizational capacity to do and use evaluation: Preliminary results of a pan-Canadian survey of evaluators* [Paper presentation]. Annual meeting of the Canadian Evaluation Society, Winnipeg, Manitoba, Canada.

Cousins, J. B., Goh, S. C., Elliott, C. J., & Bourgeois, I. (2014). Framing the capacity to do and use

evaluation. *New Directions for Evaluation*, *141*, 7–23. https://doi.org/10.1002/ev.20076

Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage.

Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Pearson.

Deci, E. L., Connell, J. P., & Ryan, R. M. (1989). Self-determination in a work organization. *Journal of Applied Psychology*, *74*(4), 580. https://doi.org/10.1037/0021-9010.74.4.580

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. Plenum.

Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, *11*(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01

Dickson, W. J. (1973). Hawthorne experiments. In C. Heyel, Ed., *The Encyclopedia of management*. Van Nostrand Reinhold.

Duffy, J. L., & Wandersman, A. (2007, November). *A review of research on evaluation capacity building strategies* [Paper presentation]. Annual conference of the American Evaluation Association, Baltimore, Maryland, United States.

Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, *26*(4), 331–362. https://doi.org/10.1002/job.322

Gagné, M., Forest, J., Vansteenkiste, M., Crevier-Braud, L., Van den Broeck, A., Aspeli, A. K., Bellerose, J., Benabou, C., Chemolli, E., Güntert, S. T., Halvari, H., Indiyastuti, D. L., Johnson, P. A., Molstad, M. H., Naudin, M., Ndao, A., Olafsen, A. H., Roussel, P., Wang, Z., & Westbye, C. (2015). The Multidimensional Work Motivation Scale: Validation evidence in seven languages and nine countries. *European Journal of Work and Organizational Psychology*, *24*(2), 178–196. https://doi.org/10.1080/1359432X.2013.877892

Gliem, J. A., & Gliem, R. R. (2003). *Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales* [Paper presentation]. Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education, Columbus, Ohio, United States.

Johari, S., & Jha, K. N. (2020). Impact of work motivation on construction labor productivity. *Journal of Management in Engineering*, 36(5), 04020052. https://doi.org/10.1061/(ASCE)ME.1943-5479.0000824

Kuhl, J., Quirin, M., & Koole, S. L. (2021). The functional architecture of human motivation: Personality systems interactions theory. In *Advances in motivation science* (Vol. 8, pp. 1–62). Elsevier. https://doi.org/10.1016/bs.adms.2020.06.001

Labin, S. N., Duffy, J. L., Meyers, D. C., Wandersman, A., & Lesesne, C. A. (2012). A research synthesis of the evaluation capacity building literature. *American Journal of Evaluation*, *33*(3), 307–338. https://doi.org/10.1177/1098214011434608

Lindner, J. R. (1998). Understanding employee motivation. *Journal of Extension*, *36*(3), 1–8.

Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, *50*(4), 370. https://doi.org/10.1037/h0054346

McIntosh, J. S., Buckley, J., & Archibald, T. (2020). Refining and measuring the construct of evaluative thinking: An exploratory factor analysis of the evaluative thinking inventory. *Journal of MultiDisciplinary Evaluation*, *16*(34), 104–117. https://doi.org/10.56645/jmde.v16i34.591

Milstein, B., Chapel, T. J., Wetterhall, S. F., & Cotton, D. A. (2002). Building capacity for program evaluation at the Centers for Disease Control and Prevention. *New Directions for Evaluation*, *93*, 27–46. https://doi.org/10.1002/ev.40

Patton, M. Q. (2018). A historical perspective on the evolution of evaluative thinking. *New Directions for Evaluation*, *158*, 11–28. https://doi.org/10.1002/ev.20325

Preskill, H. (2014). Now for the hard stuff: Next steps in ECB research and practice. *American Journal of Evaluation*, *35*(1), 116–119. https://doi.org/10.1177/1098214013499439

Preskill, H., & Boyle, S. (2008a). A multidisciplinary model of evaluation capacity building. *American Journal of Evaluation*, *29*(4), 443–459. https://doi.org/10.1177/1098214008324182

Preskill, H., & Boyle, S. (2008b). Insights into evaluation capacity building: Motivations, strategies, outcomes, and lessons learned. *The Canadian Journal of Program Evaluation*, *23*(3), 147. https://doi.org/10.3138/cjpe.0023.008

Riyanto, S., Endri, E., & Herlisha, N. (2021). Effect of work motivation and job satisfaction on employee performance: Mediating role of employee engagement. *Problems and*

Perspectives in Management, *19*(3), 162–174. http://dx.doi.org/10.21511/ppm.19(3).2021.14

Robbins, S. P. (1993). *Organizational behavior: Concept, controversies, and applications: Instructor's manual with transparency masters*. Prentice Hall.Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary Educational Psychology*, 61, 101860. https://doi.org/10.1016/j.cedpsych.2020.101860

Schunk, D. H., & DiBenedetto, M. K. (2020). Motivation and social cognitive theory. *Contemporary Educational Psychology*, *60*, 101832. https://doi.org/10.1016/j.cedpsych.2019.101832

Schwandt, T. A. (2018). Evaluative thinking as a collaborative social practice: The case of boundary judgment making. *New Directions for Evaluation*, *158*, 125–137. https://doi.org/10.1002/ev.20318

Sobeck, J., & Agius, E. (2007). Organizational capacity building: Addressing a research and practice gap. *Evaluation and Program Planning*, *30*(3), 237–246. https://doi.org/10.1016/j.evalprogplan.2007.04.003

Suarez-Balcazar, Y., & Taylor-Ritzler, T. (2014). Moving from science to practice in evaluation capacity building. *American Journal of Evaluation*, *35*(1), 95–99. https://doi.org/10.1177/1098214013499440

Taut, S. (2007). Studying self-evaluation capacity building in a large international development organization. *American Journal of Evaluation*, *28*(1), 45–59. https://doi.org/10.1177/1098214006296430

Taylor-Powell, E., & Boyd, H. H. (2008). Evaluation capacity building in complex organizations. *New Directions for Evaluation*, *120*, 55–69. https://doi.org/10.1002/ev.276

Taylor-Ritzler, T., Suarez-Balcazar, Y., Garcia-Iriarte, E., Henry, D. B., & Balcazar, F. E. (2013). Understanding and measuring evaluation capacity: A model and instrument validation study. *American Journal of Evaluation*, *34*(2), 190–206. https://doi.org/10.1177/1098214012471421

Tietjen, M. A., & Myers, R. M. (1998). Motivation and job satisfaction. *Management decision*, *36*(4), 226–231. https://doi.org/10.1108/00251749810211027

Van den Broeck, A., Howard, J. L., Van Vaerenbergh, Y., Leroy, H., & Gagné, M. (2021). Beyond intrinsic and extrinsic motivation: A meta-analysis on self-determination theory's multidimensional conceptualization of work motivation. *Organizational Psychology Review*, *11*(3), 240–273. https://doi.org/10.1177/20413866211006173

Vo, A. T., & Archibald, T. (2018). New directions for evaluative thinking. New directions for evaluation, 2018(158), 139-147. https://doi.org/10.1002/ev.20317

Vo, A. T., Schreiber, J. S., & Martin, A. (2018). Toward a conceptual understanding of evaluative thinking. *New Directions for Evaluation*, *158*, 29–47. https://doi.org/10.1002/ev.20324

Vroom, V. H. (1964). *Work and motivation* (Vol. 54). Wiley.

Wandersman, A. (2014). Moving forward with the science and practice of evaluation capacity building (ECB): The why, how, what, and outcomes of ECB. *American Journal of Evaluation*, *35*(1), 87–89. https://doi.org/10.1177/1098214013503895

Wang, S. L. (2014). Cooperative extension system: Trends and economic impacts on U.S. agriculture. *Choices*, *29*(316-2016-7709), 1–8. https://doi.org/10.22004/ag.econ.171040