

# The Relationship between Motivation and Evaluation Capacity in Community-based Organizations

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(ABSTRACT)

Community-based organizations increasingly face the need to systematically gather and provide data, information, and insights on the quality of their services and performances to governments, donors, and funding agencies. To meet these demands, community-based organizations have identified the need to build their own evaluation capacity. Increasing the evaluation capacity of an organization requires evaluation capacity building at an individual level, which might be affected by other factors like employee work motivation. This quantitative study uncovers the relationship between employee work motivation and individual evaluation capacity using the Multidimensional Work Motivation Scale and the Evaluation Capacity Assessment Instrument. I found that employees with higher intrinsic motivation have higher evaluation capacity, whereas, those with higher amotivation have lower evaluation capacity. Apart from that, this study also investigates the relationships motivation - evaluative thinking, and evaluation capacity - evaluative thinking, finding that individual evaluation capacity and evaluative thinking are closely related. This study elucidates the link between employee motivation, evaluation capacity, and evaluative thinking, which will not only benefit the organizations to better their practice of evaluation, but also help the employees to make progress in their career paths.

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(GENERAL AUDIENCE ABSTRACT)

Program evaluation has gained importance among community-based organizations in recent years, as they increasingly face the need to provide information on the quality of their services to government and other funding agencies. Evaluation capacity and evaluative thinking play an important role in establishing better standards of evaluation practice in an organization, thus increasing its overall effectiveness. Organizations hence engage in and promote evaluation capacity building practices to develop the evaluation capacity of their staff. However, capacity must also be understood at the individual level, as organizations are comprised of groups of individuals, which might be affected by the individual factors like motivation. This quantitative study uncovers the relationship between employee work motivation and individual evaluation capacity using the Multidimensional Work Motivation Scale and the Evaluation Capacity Assessment Instrument. I found that employees with higher intrinsic motivation have higher evaluation capacity, whereas, those with higher amotivation have lower evaluation capacity. Apart from that, this study also investigates the relationships motivation - evaluative thinking, and evaluation capacity - evaluative thinking, finding that individual evaluation capacity and evaluative thinking are closely related. This study elucidates the link between employee motivation, evaluation capacity, and evaluative thinking, which will not only benefit the organizations to better their practice of evaluation, but also help the employees to make progress in their career paths.

# Dedication

*To my Krish . . .*

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# List of Abbreviations

**ECAI** Evaluation Capacity Assessment Instrument

**ECB** Evaluation Capacity Building

**ET** Evaluative Thinking

**MWMS** Multi-dimensional Work Motivation Scale

**SDT** Self-Determination Theory

# Chapter 1

## Introduction

### 1.1 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 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. According to Labin et al. (2002) “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. 2004; Preskill & Boyle, 2008). ECB in an organizational context may be driven by internal, external or combined factors. Labin et al. (2012) succinctly summarized Preskill and Boyle’s (2008) three important factors that must be taken into account 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. In order to develop evaluation capacity among staff, evaluators have started to use ECB practices, which intend to equip the staff members 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). As the practice of ECB has become more widespread, the construct of Evaluative Thinking (ET) has also gained importance in recent times. According to Buckley, Archibald, Hargraves and Trochim (2015) “Evaluative Thinking critical thinking applied to contexts of evaluation,” (p. 37) and has become one of the most important factors in evaluation capacity and high-quality evaluation practice. So, to implement ECB practices at the grass root level of an organization, it is necessary to inculcate ET among the individual employees.

In recent years another important topic that has gained attention in the field of organizational development is employee motivation. As pointed out by Kreitner and Kinicki (1998), motivation is derived from the Latin word 'movere', which means 'to move'. Motivation acts as a factor behind an individual or collective urge to take actions and reach the goals. It is very important for employees to stay motivated for an organization to succeed. Motivated employees in an organization tend to align their goals with that of the organization and direct all of their efforts towards it (Kalim Ullah, 2010). Researchers have proposed different theories of motivation over the years. Among them, the Self-Determination Theory (SDT) proposes a multidimensional view of motivation (Deci & Ryan, 2000). This theory helps to determine and describe the level or type of motivation in an individual.

## 1.2 Statement of the Problem

Community-based organizations increasingly face the need to provide information on the quality of their services to governments, donors, and funding agencies. In the *Handbook for Practical Program Evaluation*, Newcomer, Hatry and Wholey stated that, “The demand for systematic data on the performance of public and non-profit programs continues to rise across the world” (2004, p. xxxiii). In order to meet these demands, community-based organizations should focus on building their own evaluation capacity (Herman & Associates, 2005). Program evaluation is not prevalent in the extension and community-based organization sector, due to the lack of evaluation capacity among staff (Suvedi & Stoep, 2016). Suvedi and Stoep also mentioned that organizations lack funds, in-service training, and support to promote the use of evaluation. Carman (2007) studied the evaluation practices of community-based organizations. The findings from her study reveal that community-based organizations are often unable to reap the benefits of useful evaluation and performance measurement data, which prevents them from improving their services. The author also suggested ways for improving the internal capacity for evaluation in community-based organizations. According to the *W. K. Kellogg Foundation Evaluation Handbook* (Peterson, 1998, p. 3), “Evaluation should be concerned not only with specific outcomes, but also with the skills, knowledge and perspectives acquired by the individuals who are involved with the project”. So, they recommend everyone associated with a program should build their own evaluation capacity, not just for accountability, but also for improving their services. ECB is an exercise which is different than conducting an evaluation. Labin et al. (2012), after reviewing several definitions, frameworks and approaches, defined ECB as “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). Preskill and Boyle (2008), in their multidisciplinary model of evaluation capacity building, delineate the ECB strategies

that highlight various approaches that can be adopted for thinking evaluatively and engaging in evaluation practice. The authors describe various reasons that motivate organizations to develop evaluation capacity among the members. However, capacity must also be understood at the individual level, as organizations are comprised of groups of individuals. There is a need to better understand individual motivation in a professional setting and the relationship between that motivation and evaluation capacity. Without such an understating, ECB efforts might not be successful or effective. In addition, in the past five years, there has been increasing attention paid to the notion of evaluative thinking (Vo & Archibald, 2018), but not much empirical research has been done yet on evaluative thinking. As stated by Buckley, Archibald, Hargraves, and Trochim (2015), “In the field of evaluation, especially among people involved in evaluation capacity building (ECB), evaluative thinking (ET) is increasingly recognized as a key component of evaluation capacity and high-quality evaluation practice” (p. 375). The authors proposed a definition of ET, “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) Based on that definition, it is plausible that there may be salient relationships among individual motivation, evaluative thinking and evaluation capacity. Understanding these relationships could also potentially help ECB practitioners do more effective and successful ECB.

### **1.3 Purpose of the study**

The purpose of this quantitative study was threefold: to explore the relationship between: (a) employee motivation and individual evaluation capacity; (b) employee moti-

vation and evaluative thinking, and (c) evaluation capacity and evaluative thinking, in the context of Cooperative Extension in two states, Virginia and Maryland. In examining the relationship between the above mentioned 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 it was for women), program area (whether it was true across positive youth development programs (4-H), Agriculture and Natural Resources (ANR), and Family and Consumer Sciences (FCS)), 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 its overall effectiveness. The present study aimed to shed light on whether employee motivation has a role to play in good evaluation practice. Also, in the research on ECB, evaluation capacity and evaluative thinking are conceptually related, but no research has been conducted 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.

## 1.4 Research Questions

The research questions pertaining to the purpose of 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?

In this study, employee motivation was measured using the Multidimensional Work Motivation Scale (MWMS) (Gagne et al. 2015), evaluation capacity was measured adapting the Evaluation Capacity Assessment Instrument (ECAI) (Taylor-Ritzler et al. 2013), and evaluative thinking was measured using the Evaluative Thinking Inventory (ETI) (Buckley & Archibald, 2011). The research methods are described in detail in Chapter 3.

# Chapter 2

## Review of Literature

### 2.1 Evaluation

Evaluation is practiced by us all, every day in our daily lives, either knowingly or inadvertently. Scriven states that, “Evaluation is a new discipline though an old practice” (1981, p. *i*). The practice of evaluation started as early as the late 1700s or early 1800s. In 1815, the Army Ordnance Dept. was the first to conduct a formal evaluation in the US, in order to set regulations in the consistency in manufacturing all artillery (Stufflebeam, Madaus, & Kellaghan, 2000). In daily life, evaluation is always present in decision making, though it is different from a systematic and an organized program evaluation. The word ‘evaluation’ has a different essence for different people, and various authors define evaluation in different ways in diverse contexts, such as applied social research, politics, international development etc. According to Scriven (1996, p. 401), evaluation is a way to determine the merit, worth and significance of an evaluand (that is, the ‘thing’ being evaluated). *Merit* is an intrinsic value or quality of an evaluand, while *worth* refers to its value in a particular context and *significance* is its importance. Guskey (2000) reshaped the definition as, “Evaluation is the systematic investigation of merit and worth. . .”, by which the author implied that evaluation is a process with specific objectives for collecting and synthesizing evidence through appropriate methods and techniques. Many authors defined evaluation mainly in the regime of applied social science research: as used to “inform action, enhance decision making, and

apply knowledge to solve human and societal problems” (Patton, 1990, p. 12). Rossi, Lipsey, and Freeman (2003) narrowed it down to define program evaluation as, “. . . a social science activity directed at collecting, analyzing, interpreting, and communicating information about the workings and effectiveness of social programs.” Various researchers emphasize evaluation as the way of predicting the outcome of a program or investigating what has been accomplished in the program. Based on these two types, evaluation is broadly classified as *formative* or *summative* (Scriven, 1967). Formative evaluation is evaluation which is conducted during the evolution period of a program or during the delivery of a program. It is the type of evaluation which informs to the program plans and designs. Whereas, summative evaluation is the type of evaluation which is done after the completion of the program, to get evidence and feedback on the program. In the early days of the emergence of the field of evaluation, researchers failed to agree on certain principles to conduct any kind of evaluation. So, to make it uniform, a set of standards, *The Program Evaluation Standards*, (Program Evaluation Standards, 2011) were developed, by a joint committee formed by the American Educational Research Association (AERA), the American Psychological Association (APA), and the National Council on Measurement in Education, to guide the evaluation process. The standards serve as a guide not only for evaluators to plan and implement evaluation, but also to anyone using the evaluation results. There are thirty standards which are based on five core attributes of evaluation quality: utility, feasibility, propriety, accuracy, and accountability.

## 2.2 Evaluation Capacity Building

The growing demand for and importance of evaluation is not confined to the realm of social sciences, but has crossed all its boundaries. Scriven stated that, “Evaluation is

not only a discipline on which all others depend, it is one on which all deliberate activity depends” (1996, p. 404). Evaluation is a key component in growth and success, both at individual or organizational levels. Thus, with the increased importance of evaluation in every sector, the capacity to better understand the evaluation findings and engage in the process has become absolutely necessary. Preskill and Torres (1999) outlined four processes to engage an organization’s members in evaluative inquiry and to make evaluation a part of their work practices: (1) dialogue, (2) reflection, (3) asking questions, and (4) identifying and clarifying values, beliefs, assumptions, and knowledge. In order to create a culture of evaluation practice among the individuals in an organization, researchers adopted the concept of ECB (Boyle, & Lemaire, 1999). There is a striking difference between program evaluation and ECB. ECB is a process to strengthen and sustain program evaluation practices by increasing the organization’s capacity to plan, design, and practice evaluation and eventually use the evaluation findings to better their performance. 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 attitude of organizational members to engage themselves into sustainable evaluation practice (Preskill & Boyle, 2008). According to Labin et al., 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” (2012, p. 308). The lessons learned from the Regional Platform for Evaluation Capacity Building in Latin America and the Caribbean’s (PREVAL) efforts to build evaluation capacity from 2004 to 2010, are shared by Rotondo (2012). The main factors that should be considered in planning, monitoring and evaluation and the use of PREVAL’s processes and findings are also discussed by the author. Along with that, the key findings about the role of stakeholders and necessary components for success from PREVAL’s efforts in building evaluation capacity in projects in Latin America and Caribbean are also outlined. An ECB model, proposed by Preskill and Boyle (2008), describes the strategies for designing and conducting evaluation

capacity building and performing empirical research on it. The authors delineated the importance of three different factors that must be taken into account while engaging in ECB: (a) motivation for ECB (b) assumptions and expectations about ECB (c) identification of goals and objectives for ECB. In this context they provided a detailed and explicit definition of ECB as follows:

ECB involves the design and implementation of teaching and learning strategies to help individuals, groups, and organizations, learn about what constitutes effective, useful, and professional evaluation practice. The ultimate goal of ECB is sustainable evaluation practice, where members continuously ask questions that matter, collect, analyze, and interpret data, and use evaluation findings for decision-making and action. For evaluation practice to be sustained, participants must be provided with leadership support, incentives, resources, and opportunities to transfer their learning about evaluation to their everyday work. Sustainable evaluation practice also requires the development of systems, processes, policies, and plans that help embed evaluation work into the way the organization accomplishes its mission and strategic goals. (p. 444)

Taylor-Powell et al. (2008) discussed the role of ECB in extension evaluation. The processes associated with ECB in the context of extension has been described as a three-component framework comprised of organizational environment, resources and supports, and professional development. The connection between individual, team, program, and organizational change and ECB has been explained by a logic model. The authors draw upon their challenging and rewarding experiences of building evaluation capacity in various organizations to conclude with their learnings and reflections. According to Stockdill, Baizerman, and Compton (2002), ECB is composed of three basic structural components: the overall

process, actual practices, and the occupational orientation and practitioner role. The authors described ECB as a never-ending evaluation practice which can be used by the stakeholders and others over time. They defined ECB as, “. . . the intentional work to continuously create and sustain overall organizational processes that make quality evaluation and its uses routine” (see Figure 2.1).

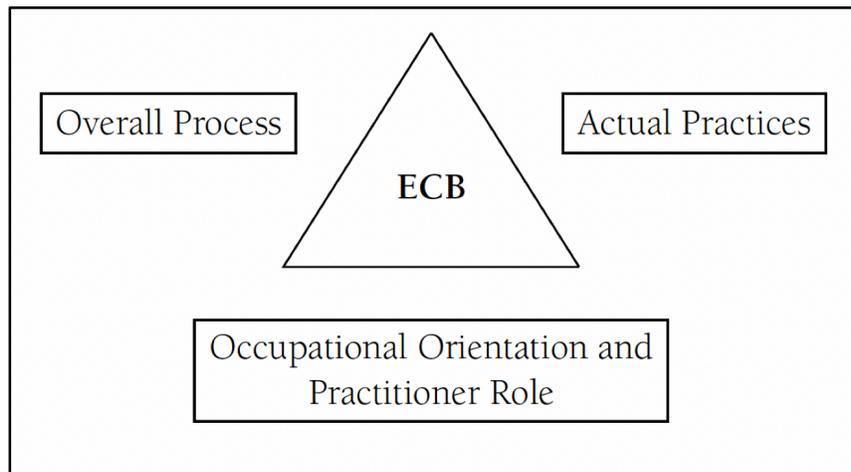


Figure 2.1: Overview of ECB. This figure was adopted with permission from Stockdill, Baizerman, and Compton, 2002

The structural components of ECB do not inform the design and practice of it. Baizerman, Compton and Stockdill (2002) developed a tool/checklist for assessing ECB in an organization and for planning an organization-based effort. This tool is built to help people doing the evaluation based on the organizational need and how it would best fit into their management practices. Preskill and Boyle (2008) developed a *Multidisciplinary Model of Evaluation Capacity Building*, which will help in designing, implementing, and practicing evaluation. The model lists ten strategies to help people develop the knowledge, skills, and attitudes to engage themselves in practicing evaluation. Labin et al., in their review of literature (2012) developed a model mainly based on Preskill and Boyle’s Multidisciplinary model of ECB. The model has a causal direction from *Need* (left) to *Activities* (middle) to

*Outcomes* (right). The model accounts for the need or reason for ECB, activities of the ECB strategies, and the outcomes of ECB both at individual and organizational level.

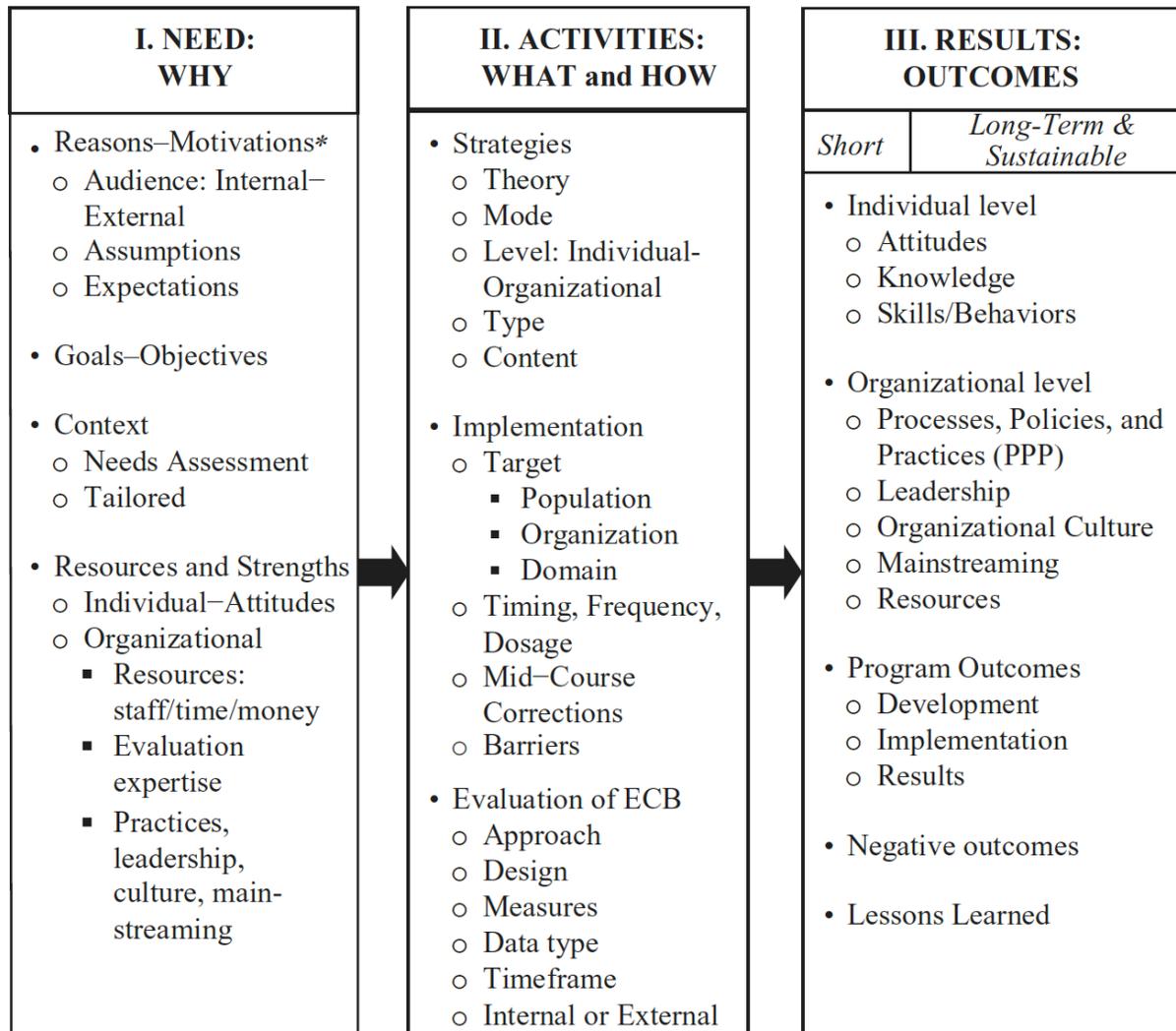


Figure 2.2: Integrative ECB Model (Labin et al., 2012)

This model in Figure 2.2 by Labin et al. has been modified by Wandersman (2013) to put readers in a better place to practice ECB. This refined model provides a frame for operationalizing the previous ECB model. Different strategies are adopted in organizations to engage their employees in evaluation practices. It is important to keep in mind that

ECB is a process, which is different from conducting evaluations. ECB is relevant and can be applied to the individual as well as the entire organization (Preskill & Boyle, 2008; Schaumberg-Muller, 1996). Fetterman and Wandersman (2005, p.8) believed that, “The more community members participate in and control the evaluation, the more likely they are to embrace the findings and recommendations, because they own them.” To practice ECB, the it is imperative to get to know individuals’ starting positions or existing knowledge in evaluation, and so an Evaluation Capacity Assessment Instrument (ECAI) for measuring the evaluation capacity of an employee in an organization has been introduced and validated by Taylor-Ritzler et al. (2013). This particular measuring tool has also been adopted in the current study to measure the evaluation capacity of the individuals in an organization.

## 2.3 Evaluative Thinking

In the world of evaluation, evaluative thinking (ET) is a concept which has gained importance among the people who engage in evaluation capacity building (Buckley, Archibald, Hargraves & Trochim, 2015). Several researchers have perceived the importance of ET and came up with various definitions. The rising popularity of the concept of ET might tempt people to use this concept, but without careful consideration, this might result in obscure or erroneous use. In this context, Patton admonishes, “As attention to the importance of evaluation culture and evaluative thinking has increased, we face the danger that these phrases will become vacuous through sheer repetition and lip service” (2012, p. 162). Though many researchers defined ET in different ways, in the present study, the definition proposed by Buckley et al. has been adopted which is as follows:

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. (2015, p. 378)

ET is mainly a concept pertaining to the individual in an organization that is necessary for building the evaluation capacity. By chronicling the contributions of evaluation pioneers in promoting the concept of evaluation logic as a form critical thinking, Patton in (2018), reviewed the historical background of evaluative thinking as an approach to evaluation practice. He also highlights the importance of evaluative thinking under critical circumstances. Vo et al. (2018) reviewed scholarly literature on evaluative thinking, published between 1960 to 2016 and used manual, keyword and proximity searches to build a conceptual model after coding 220 records. The authors divided the knowledge or concepts gleaned from the existing literature into four thematic domains: Values, Valuing, Cognition, and Application and discussed the relevance or effectiveness of the constructed model for making the practice of evaluation more professional. Archibald et al. (2018a) described an ECB initiative by Catholic Relief Services in Zambia, Ethiopia and Malawi as a part of the USAID effort to become an efficient learning organization. According to them, evaluative thinking, which can be achieved by ECB, can be effectively used by community development practitioners to foster collaboration, learning, and adaptive management. Incorporating valuable knowledge from adult education, which is based on critically reflective practice and critical theory, also can add to the value of current perspectives in evaluative thinking (Archibald et al., 2018b). The authors started with a literature review on critical theory and reflection in evaluation, which is based on evaluation theorists' ideas on role of values and valuing in evaluation and subsequently its role in society. After investigating some common ground between evaluative thinking, critical thinking, and critically reflective practice, the authors brought to light the effects of critical evaluative thinking on social justice evalua-

tion. According to them, through critical reflection, investigation, and action, evaluation practitioners can analyze and examine their assumptions, which would enrich their training and professional development. 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 which is trying to instill in its employees the capacity of evaluation. Thus if an organization goes through an ECB process, then the use of ET which is linked with organizational effectiveness should be evident and challenge areas should be identifiable (Baker & Bruner, 2006). The authors also conducted a study, Evaluative Thinking in Organizations Study (ETHOS) to understand the relationship between evaluation capacity and the use of evaluative thinking in organizational context and how it can increase its effectiveness. However, the Evaluative Thinking Inventory (ETI) by Buckley and Archibald (2011) has been adopted in this study because it better reflects recent advances in the operationalization of the construct of ET.

## 2.4 Motivation

Another important aspect of the current study is the concept of '*motivation*' when applied in the context of an organization. Motivation can be considered as a factor which acts behind an individual or collective urge of human beings to act and reach the goals (Kreitner & Kinicki, 1998). There has always been lack of agreement by different authors in defining motivation: "it is evident . . . that there is still no substantial agreement about what motivation is. I think there is something wrong when something like this persists for as long a time as it has" (Littman, 1958, p. 115). The author defined motivation based on five different

characteristics: energizing, directive and selective, persistence, motivational physiology, and the motivational phenomena of consciousness. Kleinginna and Kleinginna (1981) developed nine categories to define motivation based on various common emphases made by other authors while defining motivation. People from different fields and the dictionary meaning of motivation varied across a wide range, and based on all of the factors considered by various authors, Mitchel (1982) proposed a definition of motivation as “. . . the degree to which an individual wants and chooses to engage in certain specified behaviors.” Kreitner in 1998 pointed out that the term motivation has been derived from the Latin word ‘*movere*’, which means ‘*to move*’. Lindner (1998) defined motivation as “the inner force that drives individuals to accomplish personal and organizational goals.”

There are various aspects which come into play while considering organizational goals, of which employee work motivation is considered to be one of the most important ones. Motivated employees help organizations to grow and also they thrive in a competitive and dynamic environment. Elton Mayo and Fritz Roethlisberger in the 1920s conducted the Hawthorne studies, where they discovered employees are not only motivated by monetary incentives but their behavior is linked to their attitudes (Dickson, 1973). Hawthorne studies revealed that employees’ performance depends on various social issues and their job satisfaction which in turn revealed that needs and motivation of employees became an utmost priority for the managers (Bedeian, 1993). The Hawthorne studies led to more research on understanding employee motivation and later there were five approaches that led to the understanding of motivation: Maslow’s need-hierarchy theory, Herzberg’s two-factor theory, Vroom’s expectancy theory, Adams’ equity theory, and Skinner’s reinforcement theory. Maslow’s need-hierarchy theory (Maslow, 1943) is based on five levels of employee needs: physiological, safety, social, ego, and self-actualizing. According to Vroom’s theory, employee motivation is related to rewards (Vroom, 1964) and the relationship is directly

proportional to each other. The more the rewards the more the motivation of the employees, and the less the reward the less the motivation of the employees. Adams' 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 tension created (Adams, 1965). Later, Robbins (1993) stated that motivated employees are driven by tension caused by an unsatisfied need, leading them to pursue certain goals, which 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 to negative output should not only not be supported but also that it doesn't repeat should be taken care of by the management. Lindner (1998) conducted a study to investigate the factors that motivated employees in doing their work. According to the author, an 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 them the theory that I have used in this study is Self-Determination Theory (SDT) developed by Deci and Ryan (1985). In the context of workplace environment, SDT analyzes the motivation behind a particular activity or performance of an individual employee (Deci & Ryan, 2000). It is composed of three different types of motivation: amotivation, extrinsic, and intrinsic. In the self-determination continuum, amotivation and intrinsic motivation are the two extremes. Amotivation is referred to absence of motivation within an individual. Extrinsic motivation is referred to as the type of motivation which is triggered or driven by an external factors like reward, incentive, punishment, promotion, etc. While, intrinsic motivation on the other hand is referred to as the type of motivation which is driven by internal factors such as personal interest, attitude, etc. Central to self-determination theory (refer to Figure 2.3), extrinsic motivation varies in the degree to which it is autonomous or controlled (Gagne & Deci, 2005).

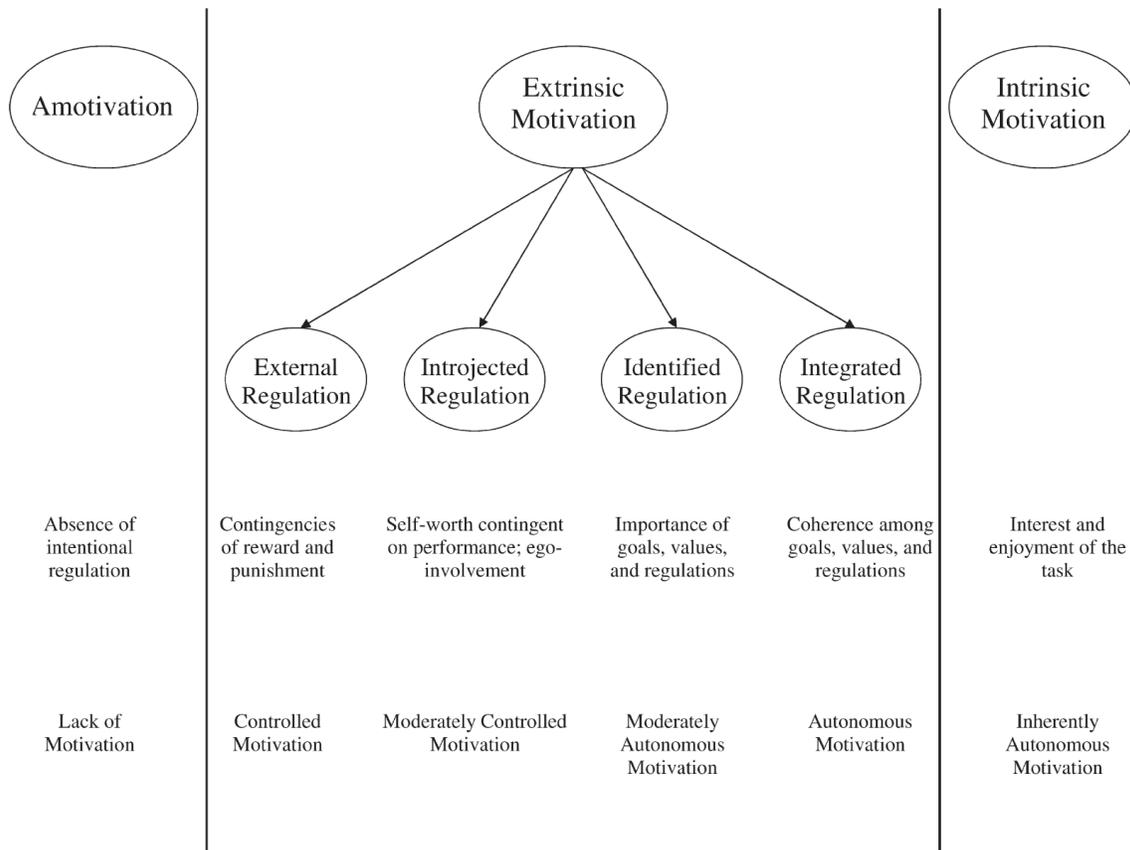


Figure 2.3: Self-determination continuum adopted with permission from Gagne and Deci (2005)

Deci et al. (1989) tested self determination theory in the context of relationship between managers and their subordinates in 23 major organizations. Data obtained from the managers and the 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, Tietzen et al. (1998) chronicles 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 Gagne 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.

Now, after the discussion of three important concepts used in this study: ECB, ET and motivation and the related important literature, it is necessary to get an idea of the connection between these factors. In this context, it is useful to mention that several studies have been conducted with the objective of investigating the factors that motivate different organizations to engage their employees in ECB. Preskil and Boyle (2008) conducted a study with 15 organizations which are involved in ECB efforts, focusing mostly on the participants' motivation to engage in ECB, the resources available in the organizations to promote and support ECB, and the outcomes of the effort. The authors in the study stresses more on the motivation of the employees to engage themselves in the ECB practices. Preskil and Boyle (2008) developed a model used for designing and implementing capacity building activities. The model mentions motivation as one of the factors affecting the design and implementation of all ECB activities in an organization. But the model doesn't inform any evidence of affect of employee work motivation on their evaluation capacity. So, from the review of the current literature it is evident there has been no study that relates employee motivation based on SDT, to their evaluation capacity and evaluative thinking. Thus, the present study seeks to establish a concrete connection and correlation between the workplace motivation of employees, as measured by MWMS, and their respective evaluation capacity

and evaluative thinking as quantified by the ECAI and ETI respectively.

## 2.5 Conceptual Framework

Work motivation of the employees in an organization is a very important factor that helps organizations to grow and succeed. This study deals with employee work motivation and adopted a work motivation scale which is grounded in Self-Determination Theory (SDT) (Deci & Ryan, 2000). Self-determination is a theory of human motivation comprising of autonomous and controlled form, and proposes three different categories of motivation: amotivation, extrinsic motivation, and intrinsic motivation. Amotivation is defined as the absence of motivation. Extrinsic motivation is the type of motivation which is triggered by some external factors like rewards, avoiding punishment, incentives, promotion, etc. Whereas, intrinsic motivation is the type of motivation which is driven by some internal interests. SDT categorizes extrinsic motivation into four different types based on their relative autonomy: external regulation, introjected regulation, identified regulation, and integrated regulation. Preskil and Boyle developed a multidisciplinary model of evaluation capacity building (2008) for designing and implementing capacity building activities. This model was developed to enhance the success of any ECB initiatives in an organization. The model lists various strategies to develop knowledge, skill, and attitude to engage in a sustainable evaluation practice. In the model (refer to Figure 2.4), the second outer concentric circle on the left side has the mention of motivation of organizations' to engage in ECB which might be triggered by various factors starting from organizational aspects to leadership aspects to competence to understand and practice evaluation and lack in knowledge and skills to use the evaluation findings. This model emphasizes more on organizational motivation rather than individual motivation.

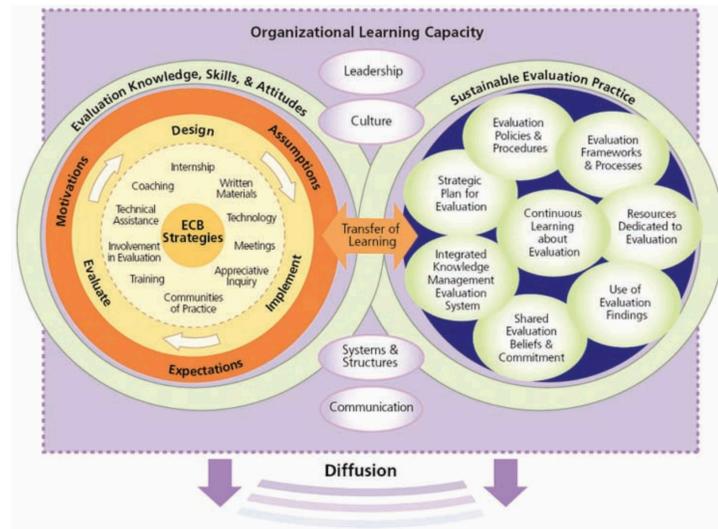


Figure 2.4: Multidisciplinary Model of Evaluation Capacity Building (Preskil & Boyle, 2008)

For this current study, I developed a visual model that illustrates the conceptual framework for the study, as shown in Figure 2.5. In this framework the three variables are shown to impact each other either in a negative or positive manner. For each of the three relationships, one of the variables becomes dependent while the other one becomes independent. To investigate if employee motivation could predict individual evaluation capacity, I tested for what is the relationship between employee motivation and their evaluation capacity appears to be. In this case, motivation was treated as the independent variable whereas evaluation capacity was treated as the dependent variable. The cyclic pattern in the model does not represent anything cyclical or periodical. The framework does not include the other dependent variables such as: state, gender, role, program area, and years of service.

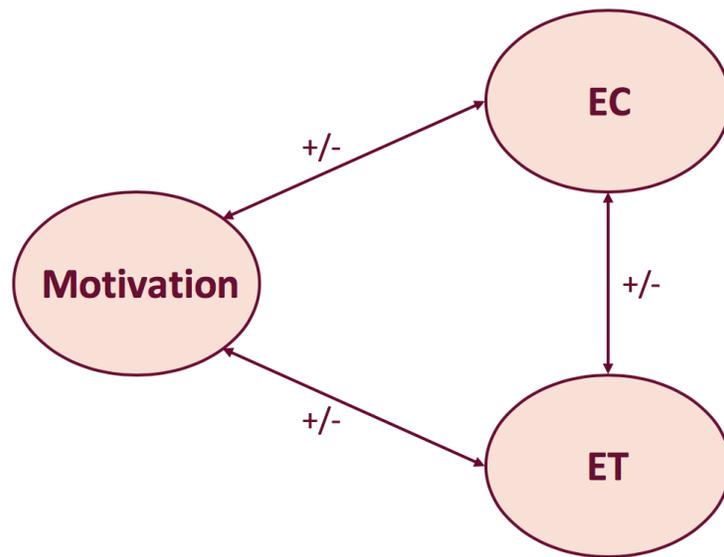


Figure 2.5: Conceptual model for current study

# Chapter 3

## Project Design and Methodology

As mentioned previously in Chapter 1, the purpose of this study was threefold: 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. Research questions that were addressed in this study are:

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?

The hypotheses related to the first research question are: employees with absence of motivation have low evaluation capacity, and employees with high intrinsic motivation will have high evaluation capacity. The hypotheses related to the second research question are: employees with absence of motivation have low evaluative thinking, and employees with high intrinsic motivation have high evaluative thinking. The hypothesis related to the last research question was, individuals with high evaluation capacity have high evaluative thinking. In this chapter the study design, instrumentation, recruitment, data collection, and data analysis approach is discussed. This study was exempted by Western Institutional Review Board and a copy of the of exemption letter can be found in Appendix [A.1](#).

## 3.1 Design

The current study adopted a quantitative methods research design: a descriptive correlational design, to uncover the relationship between the variables: motivation and evaluation capacity, motivation and evaluative thinking, and evaluation capacity and evaluative thinking. This study is 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, the study is designed in such a way that it answers the three research questions, and hence find the relationships between each of the variables. According to Creswell (2003), in quantitative studies “. . . researchers advance the relationship among variables and pose this in terms of questions or hypotheses.” So, this study adopted a quantitative research method. Ontologically, quantitative research supports a single, objective definition of reality as controlled by cause and effect relationship. Epistemologically, knowledge in quantitative research is seen as accurate (placing a strong emphasis especially on internal validity) and is generated systematically by structured means. As explained by Arghode (2012), quantitative research uses the positivist paradigm in an attempt to investigate and state the nature of reality. Quantitative research calls for scientific methods and experiments to approximate truth or the underlying reality of a phenomenon as accurately as possible. In quantitative research, the validity and reliability scores of instruments measure their trustworthiness (Creswell, 2003). The author also explains two strategies associated with quantitative inquiry: experiments and surveys. Surveys are comprised of cross-sectional and longitudinal studies using questionnaires and structured interviews as data collection approach. Moreover, survey research design describes trends, identifies individuals' attitudes, opinions, and beliefs (Creswell, 2012). This quantitative study adopted questionnaires as part of a survey design, which was conducted in the department of Agricultural, Leadership, and Community Education at Virginia Tech during the fall semester of 2018 and spring semester of 2019.

Also, the survey method is an economical design and has rapid turnaround time in data collection (Fowler, 2009) reaching a large population. The study used survey instruments to collect data from two different cooperative extension state systems: Virginia Cooperative Extension and the University of Maryland Extension. The survey was created using Qualtrics by adopting two pre-existing surveys and also by adapting one pre-existing and valid survey, based on the items which pertains to the research questions of this study. The survey also had demographic questions like state, gender, role, program area, and years of service. The study proposal was sent to both the extension administrations (Virginia and Maryland) beforehand, to get approved. After being approved by both states, the proposal was sent through the institutional review board to get 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. A visual model of the study design is shown in Figure. [3.1](#).

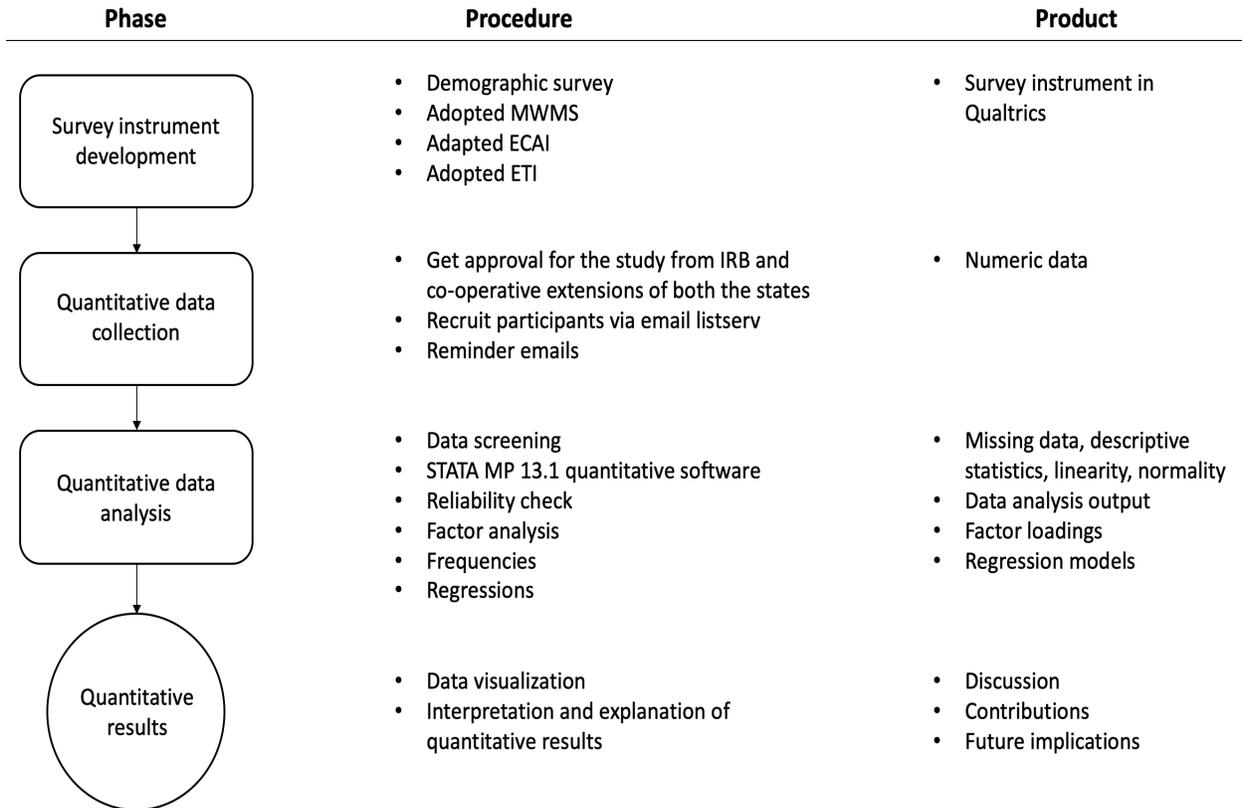


Figure 3.1: Visual model of the quantitative study design adapted from Ivankova, Creswell, and Sticks (2006)

## 3.2 Instrumentation

This study used three instruments to collect information which consecutively was utilized to answer the three research questions: the Multidimensional Work Motivation Scale (MWMS), the Evaluation Capacity Assessment Instrument (ECAI), and the Evaluative Thinking Inventory (ETI). Specifically, the MWMS was adopted to measure the level of motivation of the employees, which is attached in the Appendix [A.2](#). The ECAI has been adapted to assess the evaluation capacity of the employees based on the items that pertains to the research questions (refer to Appendix [A.3](#)). And the ETI has been adopted to measure

the evaluative thinking of the employees, which is attached in Appendix [A.4](#). Additionally, the participants were asked to provide demographic information regarding state, gender, role, program area, and years of service. The entire survey instrument for Virginia Cooperative Extension and University of Maryland Extension can be found in Appendix [A.5](#) and Appendix [A.6](#) respectively.

### 3.2.1 Multidimensional Work Motivation Scale (MWMS)

The MWMS (Gagne et al., 2015), which is a measure of work motivation, contains 19 items requiring the respondents to answer according to their own perspectives and beliefs (refer to Appendix [A.2](#)). The survey uses a 7-point likert scale and is not time dependent and is usually completed in 5 to 8 minutes, which prevents fatigue, boredom, and attrition of participants. The range of scores on the MWMS is 19 to 133.

The MWMS is theoretically grounded in self-determination theory (SDT) (Deci & Ryan, 2000). SDT is mainly based on the nature of motivation or the reason behind human activities. SDT proposes different types of motivations: amotivation, intrinsic motivation, and extrinsic motivation. Amotivation can be defined as the absence or lack of motivation; that is, the person is not motivated to perform an activity. Intrinsic motivation is an inherent type of motivation where the person involved pursues an activity because he or she finds it interesting or important. A person who is intrinsically motivated does not need any external incentive to start or continue performing an activity. Lastly, extrinsic motivation is the type where a person engages in an activity for instrumental or external reasons, which can be rewards, punishments or incentives. Thus, in the case of extrinsic motivation there is an external agent, which propels an individual to do the activity. It is important to note that in the case of extrinsic motivation, the withdrawal of the external factor might decrease or

end the motivation behind the particular activity. There are three sub types of extrinsic motivation, which vary in their internalization (Deci & Ryan, 2000) These three types are external regulation, introjected regulation, and identified regulation. External regulation is that type where the motivation behind an activity is to get rewards or avoid punishments from others. In case of introjected regulation, the motivation that drives one is internal pressure like shame or guilt. Lastly, identified regulation can be defined as the one where a person identifies with the values or principles associated with a particular activity. Based on the categorization, the entire scale of 19-items is divided into three sub-scales in this study: amotivation, extrinsic motivation, and intrinsic motivation, where external regulation, introjected regulation, and identified regulation are included as extrinsic motivation. This scale was tested for reliability and validity across seven languages and nine countries. The alpha coefficients for MWMS is above 0.7 for all the sub-scales of motivation across seven languages except for German.

### **3.2.2 Evaluation Capacity Assessment Instrument (ECAI)**

The ECAI, which is a measure designed to assess evaluation capacity, has 68 items requiring the respondents to assess to what degree do they agree to each of the items (refer to Appendix [A.3](#)). The range of scores for this instrument is 68 to 272. The participants responded to the survey items using a scale from 1 (strongly disagree) to 4 (strongly agree). The internal consistency of the scale was reported to be strong. In this study to assess the evaluation capacity, the ECAI has been adapted pertaining to the research questions. As this study is to investigate the relationship between evaluation capacity of the employees and their motivation and evaluative thinking, so the items in the questionnaire which is relevant for this study has been retained. The section II of the questionnaire which is related to the organizational factors has not been taken into account. Also, few of the items in section

III which is regarding evaluation outcomes have been used in this study, and of those items most of them are regarding 'use of evaluation findings' (refer Appendix A.3). This adapted survey instrument finally consisted of 31 items which can be found in Appendix A.5 and A.6.

The ECAI is based on a synthesis model. Labin et al. (2012) defined ECB as "an intentional process to increase individual motivation, knowledge and skills, and to enhance a group or organization's ability to conduct or use evaluation". The synthesis model of evaluation capacity includes factors at the individual or organizational level, which can predict the evaluation capacity outcome (Suarez - Balcazar et al. 2010). Individual factors incorporate awareness of the importance of evaluation, motivation to perform evaluation and competence to engage in evaluation practices. Organizational factors include leadership for evaluation, learning environment and resources that support evaluation. Lastly, critical evaluation capacity outcomes are those that convert evaluation practices to work processes and use of the findings. So, in order to empirically test the synthesis model, ECAI was developed.

### **3.2.3 Evaluative Thinking Inventory (ETI)**

The ETI is a tool developed by Buckley and Archibald (2011) to measure the evaluative thinking, consisting of 18 items requiring the respondents to indicate how often they do the respective behaviors described in the items using a scale from 1 (very frequently) to 6 (never) (refer to Appendix A.4). The score for this instrument ranges from 18 to 108. This tool measures ". . . the degree to which participants: (a) pose thoughtful questions; (b) describe and illustrate thinking; (c) actively pursue deeper understanding; (d) express belief in the value of evaluation; (e) seek alternatives" (McIntosh, 2015). This instrument was

first presented by Thomas Archibald, Jane Buckley, and William Trochim at the American Evaluation Association Conference on 3<sup>rd</sup> Nov, 2011. The pilot test for this instrument has been conducted but no statistical analysis was done to gather evidence on reliability and validity of the instrument. Later, McIntosh (2015), in his work in developing a specific program evaluation tool, conducted the reliability and validity tests. The reliability was tested on the three factors: (a) believing in practicing evaluation, (b) posing thoughtful questions and alternatives, and (c) describing and illustrating thinking. All the alpha coefficients for these factors were above 0.7, with an average of 0.8337.

As discussed earlier, the three existing survey instruments that were used in this study are: the Multidimensional Work Motivation Scale (MWMS), the Evaluation Capacity Assessment Instrument (ECAI), and the Evaluative Thinking Inventory (ETI). As the scale to measure evaluation capacity was adapted from the ECAI, the reliability of the adapted scale have been tested using Cronbach's alpha. The detailed statistics of the instrument can be found in Table 3.1. The inter-item correlation matrix can be found in Appendix A.8. 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 meant to have more inter consistency if the value of the coefficient is nearer to 1. The Cronbach's alpha for the scale adapted from ECAI is 0.9321.

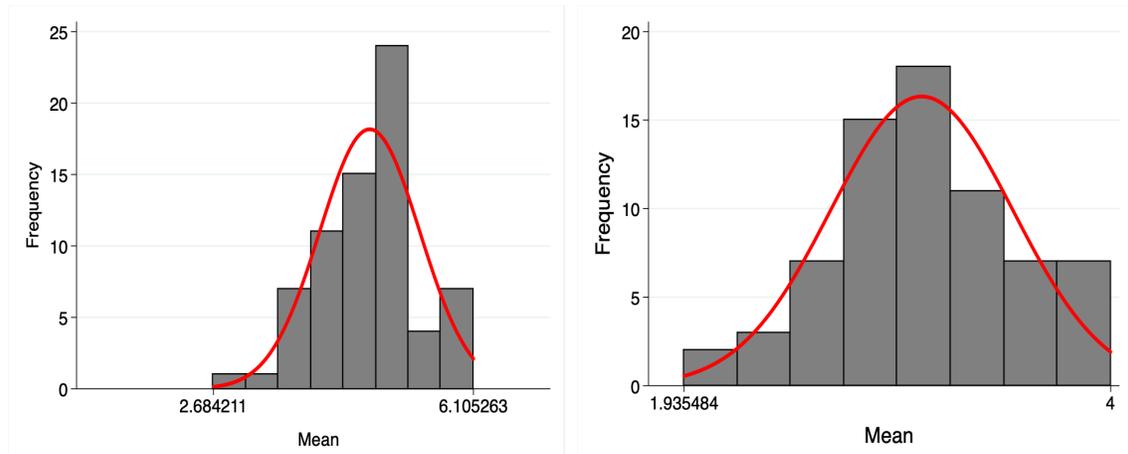
Table 3.1: Analysis of the items on the scale adapted from ECAI

Item	N	Average inter-item correlations	Alpha
Item 1	70	0.3081	0.9304
Item 2	70	0.3044	0.9292
Item 3	70	0.3168	0.9329
Item 4	70	0.3221	0.9344
Item 5	70	0.3163	0.9328
Item 6	70	0.3068	0.9300
Item 7	70	0.3152	0.9325
Item 8	70	0.3132	0.9319
Item 9	70	0.3078	0.9303
Item 10	70	0.3132	0.9319
Item 11	70	0.3068	0.9299
Item 12	70	0.3062	0.9298
Item 13	70	0.3107	0.9311
Item 14	70	0.3039	0.9291
Item 15	70	0.3062	0.9298
Item 16	70	0.3021	0.9285
Item 17	70	0.3058	0.9296
Item 18	70	0.2997	0.9277
Item 19	70	0.3020	0.9285
Item 20	70	0.3048	0.9293
Item 21	70	0.3011	0.9282
Item 22	70	0.3028	0.9287
Item 23	70	0.3029	0.9287
Item 24	70	0.3026	0.9287
Item 25	70	0.3022	0.9285
Item 26	70	0.3036	0.9290
Item 27	70	0.3047	0.9293
Item 28	70	0.3043	0.9292
Item 29	70	0.3047	0.9293
Item 30	70	0.3087	0.9305
Item 31	70	0.3010	0.9282
Test Scale		0.3068	0.9321

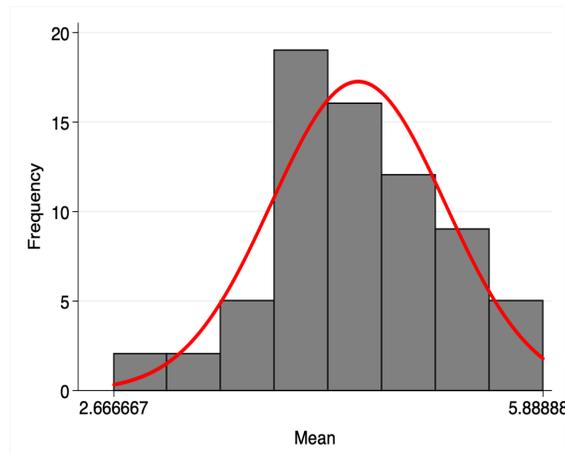
The reliability test was also done on the ETI and MWMS scales. The motivation scale (MWMS) was tested for reliability once considering the entire scale with proper reverse coding and secondly the reliability was tested for the three sub-scales of motivation. Table 3.2 presents the Mean, Standard Deviation, Cronbach's alpha, Skewness, and Kurtosis for all the three scales. The skewness and kurtosis of the ECAI scale is above .05, which implies that the scale is normally distributed. Also, the normal distribution of the collected data, with the bell curve, for the three scales are presented in Figure 3.2.

Table 3.2: Reliability statistics for all the three scales

Scale	No. of items	N	Mean	SD	Cronbach's Alpha	Skewness	Kurtosis	Min	Max
<b>ECAI</b>	31	70	3.0857	0.4412	<b>0.9321</b>	0.8106	0.9683	1.9355	4
<b>ETI</b>	18	70	4.516	0.6517	<b>0.9067</b>	0.4155	0.7297	2.6667	5.8889
<b>MOT</b>	19	70	4.7406	0.6577	<b>0.8240</b>	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



(a) Mean and normal distribution for 70 participants in MWMS (b) Mean and normal distribution for 70 participants in ECAI



(c) Mean and normal distribution for 70 participants in ETI

Figure 3.2: Mean and normal distribution for the three scales: (a) MWMS, (b) ECAI, and (c) ETI

### 3.3 Participant selection

As this study broadly aimed at establishing the relationship between employee motivation and their evaluation capacity in the context of community-based organizations, cooperative extension was selected as the study population. As this study was conducted

at Virginia Tech, approaching the Virginia Cooperative Extension was found relevant and convenient. This study also proposed to validate its findings across multiple states, so this study got approved from University of Maryland Extension to also collect data from their system. The population for this study included agents/professional track employees, specialists/tenure track employees, and administrative staffs from all the program areas within the respective extension organizations for both the states. The population for this study comprised of employees from Virginia Cooperative Extension ( $N_1 = 458$ ) and University of Maryland Extension ( $N_2 =$  not reported).

### 3.4 Data Collection

To collect quantitative data, I administered the survey instrument discussed in Section 3.2. Prior to administering the instrument, I applied to get approval from both Virginia Cooperative Extension and University of Maryland Extension. After being approved, I sent out the survey instrument to the correspondents from each state, in order to access the listserv of their employees. The email body (refer to Appendix A.7) contained the link to the survey and clicking on the link to begin the survey implied respondents' consent to participate in this study. The participants were not able to take part in the survey until they had indicated that they had read the study procedures and gave their consent. Also, the participants could exit and return to the survey as per their convenient time, if they have had queries regarding the consent page. The confidentiality and other rights of the study participants were protected as per the guidelines of Virginia Tech IRB involving human subjects, as administered by the WIRB. In accordance with the Virginia Tech IRB protocol, all the data were stored with password protection. The timeline for completing the survey was 2 weeks for both the states. After two weeks from the survey distribution, I transferred the

responses into a database for analysis.

## 3.5 Data Analysis

To accomplish this phase of the study, STATA MP 13.1 quantitative software was used, and the first step was to clean the datasets. The datasets for the two states were first stacked on top of the other and then the states were indicated with a variable of 0 and 1. The combined data set was treated as the master data dataset for further cleaning of the data. For the demographic variables, the variable names were assigned with meaningful labels. The program area for both the states varied from (1) 4-H, (2) Agriculture and Natural resources, (3) Family and Consumer Sciences, and the last option was an open ended text box entry. The various role of each of the participants were (1) Agent/Professional track, (2) Specialist/Tenure track, (3) Administrative staff, and the last option was an open text box entry. There were 111 participants who informed their consent by clicking of on the survey, out of which 2 of the participants responded with a ‘No’ to participate in it. Any missing value were removed from the data set, which amounted to a total of 70 participants who completed the entire survey. The details of the participants is given in Table 4.1. In order to uncover the relationships between the variables, Pearson product-moment correlation coefficient was measured. For research question one, the correlation coefficient was measured for all the three types of motivation and evaluation capacity. For the second research question, correlation coefficient was measured for the sub-scales of motivation and evaluative thinking. Lastly, for the third research question, correlation coefficient was measured for evaluation capacity and evaluative thinking. The descriptive statistics were run across the states, gender, program areas, and roles. The ordinary least squares regressions (OLS) were run on sub-scales of motivation considering for all the variables including the demographic

variables. Also, an OLS was run on evaluation capacity considering for evaluative thinking and demographic variables.

# Chapter 4

## Findings

The purpose of this study as discussed in Chapter 1, was to answer the three research questions using quantitative methods: (1) What is the relationship between employee motivation and individual evaluation capacity? (2) What is the relationship between employee motivation and evaluative thinking? and (3) What is the relationship between employee evaluation capacity and evaluative thinking? This chapter provides the base for answering those three research questions and presents a description of the study participants, and findings from statistical analysis.

### 4.1 Participants

This quantitative study involved participants from cooperative extension of two different states: Virginia Cooperative Extension and University of Maryland Cooperative Extension. Table 4.1 provides a description of the study participants from both the states,  $n = (n_1 + n_2) = 70$ .

Table 4.1: Description of study participants ( $n = 70$ )

Variable	$n$	%
Gender		
Female	49	70
Male	21	30
State		
Virginia	38	54.29
Maryland	32	45.71
Program Area		
4-H	22	31.43
Agriculture and Natural Resources (ANR)	32	45.71
Family and Consumer Sciences (FCS)	14	20
Other	2	2.86
Role		
Agent/Professional track	42	60
Specialist/Tenure track	26	37.14
Administrative Staff	0	0
Other	2	2.86
Years of Service		
0	4	5.71
1 – 5	29	41.43
6 – 10	16	22.86
11 – 15	7	10
16 – 20	7	10
21 – 25	1	1.43
26 – 30	3	4.28
31 – 35	2	2.86
36 – 40	0	0
41 and above	1	1.43

In Virginia, refer to Table 4.2, there were 38 participants (where,  $N_1 = 458$ ) who completed the entire survey, of which 25 were female and 13 were male. 24 participants did not complete the survey and their data were excluded during the analysis phase. About 71% of the participants were from two different program areas: 14 of them were from Agriculture and Natural Resources whereas 13 of them were from 4-H. Of the rest 11 participants, 2 of them reported their program area as something other than the four listed programs areas. 76% of the participants were agents, 7 were specialists, none of the participants were

administrative staff, and 2 of the participants reported as something other than the three listed roles. About 63% of the participants had an experience of less than or equal to 10 years in their current position: 3 of them had less than a year of experience, 10 of them were in the range of 1 to 5 years and 11 of them were in the range of 6 to 10 years of service. There was 1 participant in the range of 31 to 35 years of experience in the current position, whereas no other participants had a greater work experience in their current positions in Virginia.

Table 4.2: Description of participants from Virginia Co-operative Extension ( $n_1 = 38$ )

Variable	$n_1$	%
Gender		
Female	25	65.79
Male	13	34.21
Program Area		
4-H	13	34.21
Agriculture and Natural Resources (ANR)	14	36.84
Family and Consumer Sciences (FCS)	9	23.69
Other	2	5.26
Role		
Agent/Professional track	29	76.32
Specialist/Tenure track	7	18.42
Administrative Staff	0	0
Other	2	5.26
Years of Service		
0	3	7.89
1 – 5	10	26.32
6 – 10	11	28.95
11 – 15	4	10.53
16 – 20	5	13.16
21 – 25	1	2.63
26 – 30	3	7.89
31 – 35	1	2.63
36 – 40	0	0
41 and above	0	0

In Maryland, refer to Table 4.3, there were 32 participants who completed the entire

survey. 17 participants who responded to the survey did not complete the entire survey, and those values were removed during the analysis. About 84% of the participants were from 4-H and Agriculture and Natural Resources. All the participants were either an agent (13) or specialist (19). Most of the participants from Maryland (about 59%) served in their respective positions for about 1 - 5 years. One of the participant had more than 40 years of experience in the present position.

Table 4.3: Description of participants from University of Maryland Extension ( $n_2 = 32$ )

Variable	$n_2$	%
Gender		
Female	24	75
Male	8	25
Program Area		
4-H	9	28.12
Agriculture and Natural Resources (ANR)	18	56.25
Family and Consumer Sciences (FCS)	5	15.63
Other	0	0
Role		
Agent/Professional track	13	40.62
Specialist/Tenure track	19	59.38
Administrative Staff	0	0
Other	0	0
Years of Service		
0	1	3.12
1 – 5	19	59.38
6 – 10	5	15.63
11 – 15	3	9.38
16 – 20	2	6.25
21 – 25	0	0
26 – 30	0	0
31 – 35	1	3.12
36 – 40	0	0
41 and above	1	3.12

## 4.2 Data Analysis

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 sub-scales. 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 sub-scales focused on the 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 4.4 represents the correlation coefficient for the three types of motivation, evaluation capacity, and evaluative thinking. There was a statistically significant negative relation 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 non-significant 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 non-significant correlation between evaluative thinking and intrinsic motivation.

Table 4.4: 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 4.5 provides an illustration of the basic features of the data collected and for simplification of the variable in the proceeding analysis. In Virginia (refer to Table 4.2), two of the observations provided their role as ‘others’, which have been coalesced into ‘tenure track’, also two of the observations provided their program areas as ‘others’ which have been coalesced into the most relevant program area Agriculture and Natural Resources. Both of these decisions were made based on a good understanding of the Cooperative Extension system.

Table 4.5: Descriptive statistics

Variable	State		Gender		Program Area			Roles	
	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)
Amotivation	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	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 4.5 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 sub-scales of motivation and the evaluation variables. As 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 4.6 represents the regression output for the three types of motivation: amotivation, extrinsic motivation, and intrinsic motivation on evaluation capacity and evaluative thinking.

Table 4.6: OLS Regression on motivation Subscales

Variable	Model 1: Amotivation <sup>+</sup>	Model 2: Extrinsic motivation <sup>+</sup>	Model 3: Intrinsic motivation <sup>+</sup>
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-squared	0.05	0.03	0.1

+ Unstandardized regression coefficients (standard error in parentheses)

\* Statistically significant  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Additional models were estimated including all demographic variables and the results can be found in Table 4.7. 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 on 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 suggests that the participants from FCS were less extrinsically motivated than in comparison with those in 4-H. The third model, Model 3 was on intrinsic

motivation considering for all the demographic variables, evaluation capacity, and evaluative thinking. There was no statistically significant relations among the variables, except for the evaluation capacity, which suggests that the participants with higher intrinsic motivation has higher evaluation capacity.

Table 4.7: OLS Regression on motivation Subscales

Variable	Model 1: Amotivation <sup>+</sup>	Model 2: Extrinsic <sup>+</sup>	Model 3: Intrinsic <sup>+</sup>
Maryland	.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-squared	0.002	0.07	0.07

+ Unstandardized regression coefficients (standard error in parentheses)

\* Statistically significant  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

In spite of having two strong and statistically significant correlations between the motivation sub-scales and evaluation capacity and evaluative thinking, the limitations of the study, like the low response rate, reflects in the regression tables for motivation sub-scales on evaluation capacity and evaluative thinking. Table 4.8 represents the regression output

for evaluation capacity on evaluative thinking controlling for other demographic variables.

Table 4.8: OLS regression on evaluation capacity

Source	SS	df	MS	Number of obs = 70		
Model	5.69799054	7	.813998649	F (7, 62) = 6.52		
Residual	7.7356953	62	.124769279	Prob > F = 0.0000		
Total	13.4336858	69	.194691099	R-squared = 0.4242		
				Adj R-squared = 0.3591		
				Root MSE = 0.35323		

Evaluation capacity	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
Maryland	-.0646849	.0960237	-0.67	0.503	-.2566335	.1272638
Female	.1256168	.1050414	1.20	0.236	-.084358	.3355916
Program Area						
ANR	.0687173	.1013298	0.68	0.500	-.1338382	.2712727
FCS	.014128	.1251217	0.11	0.910	-.2359868	.2642427
Specialist	.0779293	.0994984	0.78	0.436	-.1209652	.2768237
Years of service	.0021062	.0049058	0.43	0.669	-.0077003	.0119127
Evaluative Thinking	.4160659	.0681453	6.11	0.000	.2798454	.5522863
Constant	1.067916	.3114592	3.43	0.001	.4453176	1.690514

# Chapter 5

## Discussion

### 5.1 Conclusions

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 organization from two different states was selected as the study population (Virginia Cooperative Extension and University of Maryland Extension). The results of this study are summarized as a response 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 employee motivation and their evaluation capacity, Pearson product-moment correlation coefficients were computed for all the three sub-scales of motivation and evaluation capacity. Table 4.4 revealed 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 be finally concluded that, employees with no motivation in doing their work have low

evaluation capacity, and employees with higher motivation which 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 I 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 4.4 on the three sub-scales 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 non-significant correlation between amotivation and evaluative thinking, a positive and non-significant correlation between extrinsic motivation and evaluative thinking, and a positive and non-significant correlation between intrinsic motivation and evaluative thinking. Given the low 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 4.4 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 a 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).

## 5.2 Limitations and Implications

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 for it to provide any strong evidence or claims. Another limitation of this study was an error in phrasing the question in two of the scales: the Multidimensional Work Motivation Scale, and the Evaluative Thinking Inventory, while sending out the survey instrument to the study participants. Apart from that, no pilot test was done with the survey instrument of this study, which allowed this error in phrasing to go unnoticed prior to the full implementation of the survey.

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 of various other states could also better inform our understanding of the relationship between the factors with greater evidence.

## 5.3 Contributions

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 the evaluation practices and eventually increase the overall effectiveness of the organization. Organizations should also consider critical factors that might be effective at increasing the the employees motivation towards their work. Irrespective of the type of motivation of the employees, organizations must ensure that the evaluation findings and recommendations are usefully implemented, to keep up the spirit of those who participated in the practice of evaluation, as an evidence of the usefulness of their evaluation efforts.

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# Appendices

# Appendix A

## A.1 WIRB approval letter

 <p style="text-align: right;">October 19, 2018</p> <p>Thomas Greig Archibald, PhD Virginia Tech Mail Code 0343 284 Litton-Reaves Hall Blacksburg, VA 24061</p> <p>Dear Dr. Archibald:</p> <p><b>SUBJECT: REGULATORY OPINION—IRB EXEMPTION</b> Protocol Title: The Relationship between Motivation and Evaluation Capacity in Community-based Organizations Investigator: Thomas Greig Archibald, PhD</p> <p>This letter is in response to your request to Western Institutional Review Board (WIRB) for an exemption determination for the above-referenced research project. WIRB's IRB Affairs Department reviewed the exemption criteria under 45 CFR §46.101(b)(2):</p> <p>(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:</p> <p>(i) Information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.</p> <p>We believe that the research fits the above exemption criteria. The data will be collected in a way so that the subjects cannot be identified, directly or through identifiers linked to the participants. You have also confirmed that the results of this study will not be submitted to the Food and Drug Administration (FDA) for marketing approval.</p> <p>This exemption determination can apply to multiple sites, but it does not apply to any institution that has an institutional policy of requiring an entity other than WIRB (such as an internal IRB) to make exemption determinations. WIRB cannot provide an exemption that overrides the jurisdiction of a local IRB or other institutional mechanism for determining exemptions. You are responsible for ensuring that each site to which this exemption applies can and will accept WIRB's exemption decision.</p> <p>Western Institutional Review Board 1019 39th Avenue SE Suite 200   Puyallup, WA 98374-2115 Office: (360) 252-2500   Fax: (360) 252-2498   www.wirb.com</p>	<p style="text-align: right;">Thomas Greig Archibald, PhD      2      October 19, 2018</p> <p>Please note that any future changes to the project may affect its exempt status, and you may want to contact WIRB about the effect these changes may have on the exemption status before implementing them. WIRB does not impose an expiration date on its IRB exemption determinations.</p> <p>If you have any questions, or if we can be of further assistance, please contact Kelly FitzGerald, PhD, at 360-252-2578, or e-mail <a href="mailto:RegulatoryAffairs@wirb.com">RegulatoryAffairs@wirb.com</a>.</p> <p><small>KAE:das B2-Exemption-Archibald (10-19-2018) cc: Anuradha Sen, Virginia Tech WIRB VA Tech WIRB Accounting WIRB Work Order #1-1123528-1</small></p>
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## A.2 Multidimensional Work Motivation Scale

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### The Multidimensional Work Motivation Scale (MWMS)

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## Amotivation

- Am1 I don't, because I really feel that I'm wasting my time at work.  
 Am2 I do little because I don't think this work is worth putting efforts into.  
 Am3 I don't know why I'm doing this job, it's pointless work.

## Extrinsic regulation—social

- Ext-Soc1 To get others' approval (e.g., supervisor, colleagues, family, clients ...).  
 Ext-Soc2 Because others will respect me more (e.g., supervisor, colleagues, family, clients ...).  
 Ext-Soc3 To avoid being criticized by others (e.g., supervisor, colleagues, family, clients ...).

## Extrinsic regulation—material

- Ext-Mat1 Because others will reward me financially only if I put enough effort in my job (e.g., employer, supervisor ...).  
 Ext-Mat2 Because others offer me greater job security if I put enough effort in my job (e.g., employer, supervisor ...).  
 Ext-Mat3 Because I risk losing my job if I don't put enough effort in it.

## Introjected regulation

- Introj1 Because I have to prove to myself that I can.  
 Introj2 Because it makes me feel proud of myself.  
 Introj3 Because otherwise I will feel ashamed of myself.  
 Introj4 Because otherwise I will feel bad about myself.

## Identified regulation

- Ident1 Because I personally consider it important to put efforts in this job.  
 Ident2 Because putting efforts in this job aligns with my personal values.  
 Ident3 Because putting efforts in this job has personal significance to me.

## Intrinsic motivation

- Intrin1 Because I have fun doing my job.  
 Intrin2 Because what I do in my work is exciting.  
 Intrin3 Because the work I do is interesting.
- 

The stem is "Why do you or would you put efforts into your current job?" and is accompanied by the scale: 1 = "not at all", 2 = "very little", 3 = "a little", 4 = "moderately", 5 = "strongly", 6 = "very strongly", 7 = "completely". The scale can be obtained in other languages by contacting the first or second authors.

## A.3 Evaluation Capacity Assessment Instrument

### *Items on the Evaluation Capacity Assessment Instrument (ECAI)*

Section I: About You (Individual Factors) Awareness: Thoughts About Evaluation<sup>1</sup> I think that an evaluation . . .

1. Will help me understand my program.
2. Will inform the decisions I make about my program.
3. Will justify funding for my program.
4. Will help to convince managers that changes are needed in my program.
5. Will inform changes in our documentation systems.
6. Is absolutely necessary to improve my program.
7. Should involve program participants in the evaluation process.
8. Will influence policy relevant to my program.
9. Will help improve services to people from diverse ethnic backgrounds who also have disabilities
10. Is unnecessary because we already know what is best for our participants.
11. Is too complex for staff to do.

### *Motivation: Motivation to Engage in Evaluation<sup>1</sup>*

*I am motivated to . . .*

1. Learn about evaluation.
2. Start evaluating my program.
3. Support other staff to evaluate their program.
4. Encourage others to buy into evaluating our program.

### *Competence: Evaluation Knowledge and Skills<sup>1</sup>*

*I know how to . . .*

1. Develop an evaluation plan.
2. Clearly state measurable goals and objectives for my program.
3. Identify strategies to collect information from participants.
4. Define outcome indicators of my program.
5. Decide what questions to answer in an evaluation.
6. Decide from whom to collect the information.
7. Collect evaluation information.
8. Analyze evaluation information.
9. Develop recommendations based on evaluation results.
10. Examine the impact of my program on people from diverse ethnic/racial backgrounds and/or people with disabilities.
11. Write an evaluation report.
12. Conduct an evaluation of my program on my own.
13. Conduct an evaluation of my program with support from others.
14. Present evaluation findings orally.

### *Section II: About your Organization (Organizational Factors)*

#### *Leadership<sup>1</sup>*

1. Program managers provide effective leadership.
2. Staff understands how everyone's duties fit together as part of the overall mission of the program.

3. Program managers communicate program goals and objectives clearly.
4. Program managers have a clear plan for accomplishing program goals.
5. Program managers have realistic expectations of what staff can accomplish given the resources they have available.

#### *Learning Climate<sup>1</sup>*

*The program where I work fosters an environment in which . . .*

1. Evaluation information is shared in open forums.
2. Staff is supported to introduce new approaches in the course of their work.
3. It is easy for staff to meet regularly to discuss issues.
4. Staff is provided opportunities to assess how well they are doing, what they can do better, and what is working.
5. Staff can encourage managers and peers to make use of evaluation findings.
6. Staff respects each other's perspectives and opinions.
7. Staff errors lead to teachable moments rather than criticisms.
8. Staff participates in making long-term plans for their program.
9. Staff concerns are ignored in most decisions regarding strategic planning and evaluation.

#### *Resources for Evaluation<sup>1</sup>*

*In my program . . .*

1. Resources are allocated to provide accommodations for people from diverse ethnic backgrounds and for people with disabilities to collect evaluation information (e.g., interpreters, translated documents).
2. Staff has time to conduct evaluation activities (e.g., identifying or developing a survey, collecting information from participants).
3. Staff has access to technology to compile information into computerized records.
4. Staff has access to adequate technology to produce summary reports of information collected from participants (e.g., computerized database).
5. Resources are allocated for staff training (e.g., money, time, bringing in consultants).
6. Technical assistance is available to staff to address questions related to evaluation.
7. Funders provide resources (e.g., training, money, etc.) to conduct evaluation.
8. Funders provide leadership for conducting evaluation.
9. Agency leadership engages in ongoing dialogue with funders regarding evaluation.

#### *Section III: About your Work (Evaluation Capacity Outcomes)*

*Mainstreaming: Evaluation as part of your Job<sup>1</sup>*

1. My program gathers information from diverse stakeholders to gauge how well the program is doing.
2. My program has adequate records of past evaluation efforts and what happened as a result.
3. I have access to the information I need to make decisions regarding my work.
4. I am able to integrate evaluation activities into my daily work practices.
5. The evaluation activities I engage in are consistent with funders' expectations.

#### *Use of Evaluation Findings<sup>2</sup>*

*Please indicate the extent to which your program currently uses evaluation results for the following purposes*

1. To report to a funder.
2. To improve services or programs.

3. To get additional funding.
4. To design ongoing monitoring processes.
5. To assess implementation of a program.
6. To assess quality of a program.
7. To improve outreach.
8. To make informed decisions.
9. To train staff.
10. To develop best practices.
11. To eliminate unneeded services or programs.

Note. 1. Response format was a 1-4 scale, where 1 = strongly disagree, 2 = somewhat disagree, 3 = somewhat agree, and 4 = strongly agree.

2. Response format was a 1-4 scale, where 1 = *not at all*, 2 = *to some extent*, 3 = *to a considerable extent*, and 4 = *to a very great extent*.

# A.4 Evaluative Thinking Inventory

**Evaluative Thinking Inventory (V.2)** ID #:

- Please read each of the statements below and check the appropriate box to indicate how often you do what is described by each statement.
- When applicable (depending on the question), consider how you think and act in both professional and personal settings.

	Very Frequently	Frequently	Occasionally	Rarely	Very Rarely	Never
1. I discuss evaluation strategies with my colleagues.						
2. I am eager to engage in evaluation.						
3. Diagrams and/or illustrations help me think about ideas.						
4. I am wary of claims made by others without evidence to back them up.						
5. I describe the thinking behind my decisions to others.						
6. I take time to reflect on the way I do my work.						
7. I try to convince others that evaluation is important.						
8. I consider alternative explanations for claims.						
9. I brainstorm with colleagues to develop plans and/or ideas.						
10. I believe evaluation is a valuable endeavor.						
11. I use diagrams and/or illustrations to clarify my thoughts.						
12. I suggest alternative explanations and hypotheses.						
13. I reflect on assumptions and claims I make myself.						
14. I pose questions about assumptions and claims made by others.						
15. I enjoy discussing evaluation strategies with colleagues.						
16. I describe the thinking behind my work to my colleagues.						
17. I offer evidence for claims that I make.						
18. I use diagrams and/or illustrations to communicate my thinking to others.						



## A.5 Survey instrument for Virginia Co-operative Extension

4/10/2019

Qualtrics Survey Software

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### Information Page

Thank you for your interest in participating in this study!

If you are willing to participate in this study, please answer the question below. Your response indicates that you completely understand this consent information.

Would you like to participate in this study?

- Yes  
 No

### Demographic Questions

What is your gender?

- Male  
 Female  
 Prefer to self-describe   
 Prefer not to say

Which program area are you in?

- 4-H  
 Agriculture and Natural Resources (ANR)  
 Family and Consumer Sciences (FCS)  
 Other

What is your role?

- Agent
- Specialist
- Administrative staff
- Other

How long have you been in this position?

*Please enter the number of years you have worked in this position in the text box below.*

### Questions pertaining to Motivation

Please indicate the extent of your agreement with the following statements.

Why do you or would you put efforts into your current job?

	Not at all	Very little	A little	Moderately	Strongly	Very strongly	Completely
I don't, because I really feel that I'm wasting my time at work.	<input type="radio"/>						
I do little because I don't think this work is worth putting efforts into.	<input type="radio"/>						
I don't know why I'm doing this job, it's pointless work.	<input type="radio"/>						
To get others' approval (e.g., supervisor, colleagues, family, clients . . .).	<input type="radio"/>						
Because others will respect me more (e.g., supervisor, colleagues, family, clients . . .).	<input type="radio"/>						

	Not at all	Very little	A little	Moderately	Strongly	Very strongly	Completely
To avoid being criticized by others (e.g., supervisor, colleagues, family, clients . . .).	<input type="radio"/>						
Because others will reward me financially only if I put enough effort in my job (e.g., employer, supervisor . . .).	<input type="radio"/>						
Because others offer me greater job security if I put enough effort in my job (e.g., employer, supervisor . . .).	<input type="radio"/>						
Because I risk losing my job if I don't put enough effort in it.	<input type="radio"/>						
Because I have to prove myself that I can.	<input type="radio"/>						
Because it makes me feel proud of myself.	<input type="radio"/>						
Because otherwise I will feel ashamed of myself.	<input type="radio"/>						
Because otherwise I will feel bad about myself.	<input type="radio"/>						
Because I personally consider it important to put efforts in this job.	<input type="radio"/>						
Because putting efforts in this job aligns with my personal values.	<input type="radio"/>						
Because putting efforts in this job has personal significance to me.	<input type="radio"/>						
Because I have fun doing my job	<input type="radio"/>						

	Not at all	Very little	A little	Moderately	Strongly	Very strongly	Completely
Because what I do in my work is exciting.	<input type="radio"/>						
Because the work I do is interesting.	<input type="radio"/>						

### Questions pertaining to Evaluation Capacity

Please indicate the extent of your agreement with the following statements.

I think that an evaluation . . .

	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
Will help me understand my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Will inform the decisions I make about my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Will justify funding for my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Will help me to convince managers that changes are needed in my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Will inform changes in our documentation systems.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is absolutely necessary to improve my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Should involve program participants in the evaluation process.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Will influence policy relevant to my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
Will help improve services to people from diverse ethnic backgrounds who also have disabilities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is unnecessary because we already know what is best for our participants.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is too complex stuff to do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I am motivated to . . .

	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
Learn about evaluation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Start evaluating my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Support other staff to evaluate their program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Encourage others to buy into evaluating our program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I know how to . . .

	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
Develop an evaluation plan.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clearly state measurable goals and objectives for my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identify strategies to collect information from participants.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
Define outcome indicators of my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Decide what questions to answer in an evaluation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Decide from whom to collect information.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collect evaluation information.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Analyze evaluation information.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Develop recommendations based on evaluation results.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Examine the impact of my program on people from diverse ethnic/racial backgrounds and/or people with disabilities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Write an evaluation report.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conduct an evaluation of my program on my own.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conduct an evaluation of my program with support from others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Present evaluation findings orally.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
I have access to the information I need to make decisions regarding my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Strongly disagree      Somewhat disagree      Somewhat agree      Strongly agree

I am able to integrate evaluation activities into my daily work practices.                       

### Questions pertaining to Evaluative Thinking

Please indicate the extent of your agreement with the following statements.

	Never	Very rarely	Rarely	Ocassionally	Frequently	Very frequently
I discuss evaluation strategies with my colleagues.	<input type="radio"/>					
I am eager to engage in evaluation.	<input type="radio"/>					
Diagrams and/or illustrations help me think about ideas.	<input type="radio"/>					
I am wary of claims made by others without evidence to back them up.	<input type="radio"/>					
I describe the thinking behind my decisions to others.	<input type="radio"/>					
I take time to reflect on the way I do my work.	<input type="radio"/>					
I try to convince others that evaluation is important.	<input type="radio"/>					
I consider alternative explanations for claims.	<input type="radio"/>					
I brainstorm with colleagues to develop plans and/or ideas.	<input type="radio"/>					
I believe evaluation is a valuable endeavor.	<input type="radio"/>					
I use diagrams and/or illustrations to clarify my thoughts.	<input type="radio"/>					

	Never	Very rarely	Rarely	Ocassionally	Frequently	Very frequently
I suggest alternative explanations and hypotheses.	<input type="radio"/>					
I reflect on assumptions and claims I make myself.	<input type="radio"/>					
I pose questions about assumptions and claims made by others.	<input type="radio"/>					
I enjoy discussing evaluation strategies with colleagues.	<input type="radio"/>					
I describe the thinking behind my work to my colleagues.	<input type="radio"/>					
I offer evidence for claims that I make.	<input type="radio"/>					
I use diagrams and/or illustrations to communicate my thinking to others.	<input type="radio"/>					

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## A.6 Survey instrument for University of Maryland Extension

4/10/2019

Qualtrics Survey Software

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### Information Page

Thank you for your interest in participating in this study!

If you are willing to participate in this study, please answer the question below. Your response indicates that you completely understand this consent information.

Would you like to participate in this study?

- Yes  
 No

### Demographic Questions

What is your gender?

- Male  
 Female  
 Prefer to self-describe   
 Prefer not to say

Which program area are you in?

- 4-H Youth Development  
 Family & Consumer Sciences  
 Environment & Natural Resources  
 Agriculture

Other

What is your role?

- Tenure-track
- Professional track
- Administrative staff
- Other

How long have you been in this position?

*Please enter the number of years you have worked in this position in the text box below.*

### Questions pertaining to Motivation

Please indicate the extent of your agreement with the following statements.

Why do you or would you put efforts into your current job?

	Not at all	Very little	A little	Moderately	Strongly	Very strongly	Completely
I don't, because I really feel that I'm wasting my time at work.	<input type="radio"/>						
I do little because I don't think this work is worth putting efforts into.	<input type="radio"/>						
I don't know why I'm doing this job, it's pointless work.	<input type="radio"/>						
To get others' approval (e.g., supervisor, colleagues, family, clients . . .).	<input type="radio"/>						

	Not at all	Very little	A little	Moderately	Strongly	Very strongly	Completely
Because others will respect me more (e.g., supervisor, colleagues, family, clients . . .).	<input type="radio"/>						
To avoid being criticized by others (e.g., supervisor, colleagues, family, clients . . .).	<input type="radio"/>						
Because others will reward me financially only if I put enough effort in my job (e.g., employer, supervisor . . .).	<input type="radio"/>						
Because others offer me greater job security if I put enough effort in my job (e.g., employer, supervisor . . .).	<input type="radio"/>						
Because I risk losing my job if I don't put enough effort in it.	<input type="radio"/>						
Because I have to prove myself that I can.	<input type="radio"/>						
Because it makes me feel proud of myself.	<input type="radio"/>						
Because otherwise I will feel ashamed of myself.	<input type="radio"/>						
Because otherwise I will feel bad about myself.	<input type="radio"/>						
Because I personally consider it important to put efforts in this job.	<input type="radio"/>						
Because putting efforts in this job aligns with my personal values.	<input type="radio"/>						

	Not at all	Very little	A little	Moderately	Strongly	Very strongly	Completely
Because putting efforts in this job has personal significance to me.	<input type="radio"/>						
Because I have fun doing my job	<input type="radio"/>						
Because what I do in my work is exciting.	<input type="radio"/>						
Because the work I do is interesting.	<input type="radio"/>						

### Questions pertaining to Evaluation Capacity

Please indicate the extent of your agreement with the following statements.

I think that an evaluation . . .

	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
Will help me understand my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Will inform the decisions I make about my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Will justify funding for my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Will help me to convince managers that changes are needed in my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Will inform changes in our documentation systems.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is absolutely necessary to improve my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Should involve program participants in the evaluation process.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
Will influence policy relevant to my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Will help improve services to people from diverse ethnic backgrounds who also have disabilities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is unnecessary because we already know what is best for our participants.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is too complex stuff to do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I am motivated to . . .

	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
Learn about evaluation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Start evaluating my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Support other staff to evaluate their program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Encourage others to buy into evaluating our program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I know how to . . .

	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
Develop an evaluation plan.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clearly state measurable goals and objectives for my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identify strategies to collect information from participants.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
Define outcome indicators of my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Decide what questions to answer in an evaluation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Decide from whom to collect information.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collect evaluation information.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Analyze evaluation information.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Develop recommendations based on evaluation results.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Examine the impact of my program on people from diverse ethnic/racial backgrounds and/or people with disabilities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Write an evaluation report.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conduct an evaluation of my program on my own.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conduct an evaluation of my program with support from others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Present evaluation findings orally.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
I have access to the information I need to make decisions regarding my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Strongly disagree      Somewhat disagree      Somewhat agree      Strongly agree

I am able to integrate evaluation activities into my daily work practices.                       

### Questions pertaining to Evaluative Thinking

Please indicate the extent of your agreement with the following statements.

	Never	Very rarely	Rarely	Ocassionally	Frequently	Very frequently
I discuss evaluation strategies with my colleagues.	<input type="radio"/>					
I am eager to engage in evaluation.	<input type="radio"/>					
Diagrams and/or illustrations help me think about ideas.	<input type="radio"/>					
I am wary of claims made by others without evidence to back them up.	<input type="radio"/>					
I describe the thinking behind my decisions to others.	<input type="radio"/>					
I take time to reflect on the way I do my work.	<input type="radio"/>					
I try to convince others that evaluation is important.	<input type="radio"/>					
I consider alternative explanations for claims.	<input type="radio"/>					
I brainstorm with colleagues to develop plans and/or ideas.	<input type="radio"/>					
I believe evaluation is a valuable endeavor.	<input type="radio"/>					
I use diagrams and/or illustrations to clarify my thoughts.	<input type="radio"/>					

	Never	Very rarely	Rarely	Ocasionally	Frequently	Very frequently
I suggest alternative explanations and hypotheses.	<input type="radio"/>					
I reflect on assumptions and claims I make myself.	<input type="radio"/>					
I pose questions about assumptions and claims made by others.	<input type="radio"/>					
I enjoy discussing evaluation strategies with colleagues.	<input type="radio"/>					
I describe the thinking behind my work to my colleagues.	<input type="radio"/>					
I offer evidence for claims that I make.	<input type="radio"/>					
I use diagrams and/or illustrations to communicate my thinking to others.	<input type="radio"/>					

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## A.7 Email body to the participants

Dear Sir/Madam,

I hope this email finds you in good health!

My name is Anuradha Sen. I doing my master's degree in the department of Agricultural, Leadership, & Community Education under the supervision of Dr. Thomas G. Archibald, at Virginia Tech. For my master's research, I am investigating 'The Relationship between Employee Motivation and their Evaluation Capacity.' For my study I would like to have the cooperative extension agents from two different states Virginia and Maryland. I have provided more information about the study below in this email. If you are willing to participate in this study, please follow the link below.

### **Purpose**

The purpose of this study is to explore the relationship between employee motivation, evaluative thinking and their evaluation capacity in the context of Co-operative Extensions.

### **Risks and benefits**

There are no potential risks to the study participants.

There are no direct benefits to the study participants, but the program will benefit from it. The results from this study will help in developing a more effective strategic planning to better the evaluation in a community-based organization. Also the published or presented results will add to the existing knowledge body of evaluation research

### **Procedures**

The online survey is completely voluntary. If you are willing to take part in the survey, **please follow the link below** and select "Yes" in the first page, you will be directed to three sections of multiple-choice questions page. And if you select "No", you will no longer be contacted for this study. You are free to withdraw from this study at any time without any penalty. We would appreciate if you could complete the survey no later than 02/27/2019.

Please click on this link [here](#) to access the survey.

If you have any questions or concerns, please contact the graduate research assistant, Anuradha Sen (myself) at [anuradha@vt.edu](mailto:anuradha@vt.edu) or +15407505026 and her advisor Dr. Thomas G. Archibald at [tgarch@vt.edu](mailto:tgarch@vt.edu).

Best,  
Anuradha Sen

## A.8 Inter-item correlation matrix for the adapted Evaluation Capacity Assessment Instrument

Item	Average inter-item correlations	Alpha
I think that an evaluation will help me understand my program	0.3081	0.9304
I think that an evaluation will inform the decisions I make about my program	0.3044	0.9292
I think that an evaluation will justify funding for my program	0.3168	0.9329
I think that an evaluation will help me to convince managers that changes are needed in my program	0.3221	0.9344
I think that an evaluation will inform changes in our documentation systems	0.3163	0.9328
I think that an evaluation is absolutely necessary to improve my program	0.3068	0.9300
I think that an evaluation should involve program participants in the evaluation process	0.3152	0.9325
I think that an evaluation will influence policy relevant to my program	0.3132	0.9319
I think that an evaluation will help improve services to people from diverse ethnic backgrounds who also have disabilities	0.3078	0.9303
I think that an evaluation is unnecessary because we already know what is best for our participants	0.3132	0.9319
I think that an evaluation is too complex stuff to do	0.3068	0.9299
I am motivated to learn about evaluation	0.3062	0.9298
I am motivated to start evaluating my program	0.3107	0.9311
I am motivated to support other staff to evaluate their program	0.3039	0.9291
I am motivated to encourage others to buy into evaluating our program	0.3062	0.9298
I know how to develop an evaluation plan	0.3021	0.9285
I know how to clearly state measurable goals and objectives for my program	0.3058	0.9296
I know how to identify strategies to collect information from participants	0.2997	0.9277
I know how to define outcome indicators of my program	0.3020	0.9285
I know how to decide what questions to answer in an evaluation	0.3048	0.9293
I know how to decide from whom to collect information	0.3011	0.9282
I know how to collect evaluation information	0.3028	0.9287
I know how to analyze evaluation information	0.3029	0.9287
I know how to develop recommendations based on evaluation results	0.3026	0.9287
I know how to examine the impact of my program on people from diverse ethnic/racial backgrounds and/or people with disabilities	0.3022	0.9285
I know how to write an evaluation report	0.3036	0.9290
I know how to conduct an evaluation of my program on my own	0.3047	0.9293
I know how to conduct an evaluation of my program with support from others	0.3043	0.9292
I know how to present evaluation findings orally	0.3047	0.9293
I have access to the information I need to make decisions regarding my work.	0.3087	0.9305
I am able to integrate evaluation activities into my daily work practices.	0.3010	0.9282
<b>Test Scale</b>	<b>0.3068</b>	<b>0.9321</b>