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How Firms Can Impact IT Project Continuation Intentions: A Human Capital Perspective

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Abstract

The failure rate of information technology (IT) projects is alarming, significantly costing organizations who find it hard even to justify the return on their investment. While Forbes suggests that the only way to reduce the likelihood of such failure is by looking closely at the project definition, scope, and management problems, we take a different lens, a human capital one. We propose that having certain individual characteristics for those involved in IT projects may lead to outcomes that will determine the success of a project. This study investigates the impact of locus of control, preference for consistency, and personal investment on mastery goal orientation. We postulate that learning and mastering skills during the IT project life cycle are key precursors to the intention to continue working on the IT project. We surveyed 232 professionals working on IT projects from Fortune 500 companies in the southern United States. We found that these individual characteristics influence mastery goal orientation. Also, mastery goal orientation and locus of control are determinants of intention to continue. Interestingly, mastery goal orientation fully mediates the impact of personal investment on the intention to continue. Theoretical and practical implications are discussed.

Keywords: mastery goal orientation, intention to continue, individual characteristics, IT project management.

1. INTRODUCTION

While project failure plagues firms across industries and functional areas, it is especially prominent among IT projects (e.g., Benschop, Nuijten, Keil, Rohde, Lee, & Commandeur, 2021). For example, Gartner reports that 75 percent of ERP projects fail (Andriole, 2021). In a study by the Consortium for Information and Software Quality, Krasner (2021), in conjunction with the University of Oxford, finds that "the CPSQ [cost of poor software quality] due to unsuccessful projects in the US in 2020 is \$260 billion (up from \$177.5 billion in 2018)" (p. 15). Despite the

failure rate of IT projects and the associated costs, IT projects are especially subject to IT project escalation—the investment of additional resources in a project even when evidence suggests the project may fail (Lee, Keil, & Wong, 2021).

Andriole (2021) notes in a Forbes article, "Big technology projects fail most of the time. Is there any way to reduce the likelihood of failure? Yes: look at definition, scope and management problems, but don't look too closely at problems with talent, executive support and corporate culture. They're nearly impossible to solve." (para. 1)

However, prior literature indicates that the project decision makers' (e.g., project managers) and IT project professionals' traits and perceptions may impact project outcomes such as IT project escalation (e.g., Benschop et al., 2021; Korzaan & Brooks, 2015). The talent—IT project professionals—are especially salient to both IT project outcomes and escalation because they have a great deal of influence on projects (e.g., via the project's functional and social aspects; Bond-Barnard, Fletcher, & Steyn, 2018). Further, IT project professionals take the knowledge learned from the project after completing it (e.g., Karagoz, Whiteside, & Korthaus, 2020). With the difficulty of retaining IT professionals (e.g., Zaza, Armstrong, & Riemenschneider, 2022), firms must better understand how IT project professionals impact project outcomes. Thus, we try to understand the human capital element of the project by using a goal orientation theoretical lens and the personality and escalation literature to investigate the impact of IT project professionals' characteristics on the intention to continue an IT project.

Thus, we examine the following research questions:

RQ1: What is the impact of IT project professionals' mastery goal orientation on their intention to continue?

RQ2: What are the impacts of IT project professionals' locus of control, preference for consistency, and personal investment on their mastery goal orientation?

By tackling these questions, organizations can plan on attracting IT project professionals who have these individual characteristics to offset the IT project failure rate. IT project managers can lean on the human capital side of the IT project to retain the workforce behind the project and

sustain the intention to continue the IT project by offering learning opportunities for IT project professionals. In addition, while monetary value has historically been the driver to keeping IT talent (Joseph, Ng, Koh, & Ang, 2007), there is a silver lining. We postulate that building the skills needed on the job will derive IT project professionals' intention to continue working on the IT project. Our work highlights the need to consider the context when theorizing about the IT workforce.

We organize this paper as follows. We review relevant literature and develop our hypotheses in Section 2. We describe the research methodology and data collection, validate the measurement model, and present our findings in Section 3. We discuss the study's key findings, theoretical and practical implications, future research, and limitations in Section 4. We conclude the paper in Section 5.

2. THEORETICAL DEVELOPMENT AND HYPOTHESES

Based on the previous background, we present our proposed research model in Figure 1.
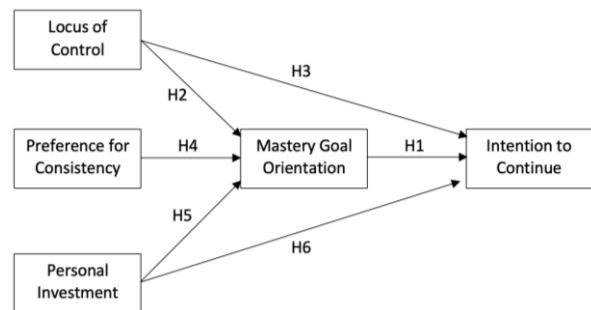
Figure 1: Proposed Model

Intention to Continue an IT Project
Intention to continue an IT project is the "behavioral tendency to continue investing time, money, and resources into an IT project" (Korzaan & Brooks, 2015). The operationalization of intention to continue in this study is a behavioral determination to continue or persist with an existing IT project. From a psychological perspective, it is the commitment to and persistence in goal-directed behavior. If the project is performing well, according to the project plan, then persistence and continuation with the project may lead to positive outcomes. Zhu, Wang, Wayng, and Yu (2021) found commitment to an IT project to be significantly related to project success. From an escalation perspective, if the project is performing poorly,

experiencing problems with quality, missing deadlines, and running over budget, then the inclination to continue with a project may lead to the escalating commitment to a failing course of action and put the project at risk of failure (Brooks, Korzaan, & Brooks, 2021; Keil, 1995). Consequently, the intention to continue a project provides unique insight into individual contributors' impact on project outcomes. Intention to continue has also been used as a dependent variable in prior studies (Brooks et al., 2021; Keil, 1995); therefore, we also include it as the dependent variable for this research.

Mastery Goal Orientation
Mastery (learning) goal orientation is the degree to which individuals desire to advance their skills and knowledge (Phillips & Gully, 1997). Mastery goal orientation can be conceptualized as either a trait—" a propensity to engage in consistent behaviors across situations" (Vandewalle, Nerstad, & Dysvik, 2019, p. 119)—or a state condition—for which behavior depends on the circumstances of the situation (Vandewalle et al., 2019). For this research, we envision mastery goal orientation as a state condition that can be affected by personal characteristics and perceptions.

Individuals with a mastery goal orientation may intend to continue an IT project because they may anticipate being able to learn more while completing the remaining aspects of the project. Projects provide many opportunities for learning in organizations (Damm & Schindler, 2002). When a project ends, IT project professionals return to their normal functions (Schindler & Eppler, 2003), where fewer learning opportunities are available. Further, individuals with a learning goal orientation tend to be more focused on self-improvement and progress toward a goal (e.g., Ross, Pirraglia, Aquilina, and Zulla, 2022). These outlooks of mastery-oriented individuals may drive them to continue a project because they perceive an opportunity for self-improvement by completing the remaining work partly because of the opportunity to learn while completing the remaining work and because of the progress already made toward the project, respectively.

Hypothesis 1: IT project professionals' mastery goal orientation is positively related to their intention to continue an IT project.

Locus of Control
Locus of control is the degree to which an individual attribute the cause of life events to outside forces or the individual's behavior and actions (Rotter, 1966). Individuals who perceive they have great control over events have an internal locus of control. Conversely, when an individual perceives events are mostly the result of forces beyond their control, the individual has an external locus of control. For the remainder of this paper, we use locus of control to refer to an internal locus of control.

Individuals with a higher locus of control would have a greater mastery goal orientation because they believe their actions influence their life (Nunn & Nunn, 1993). Therefore, these individuals would be more motivated to learn during an IT project because they could use these skills in the future and further influence their lives and careers. Locus of control has been shown to correlate with mastery goal orientation in other academic contexts positively (e.g., Albert & Dahling, 2016). Therefore, we expect that locus of control will positively affect mastery goal orientation.

Hypothesis 2: IT project professionals' locus of control is positively related to their mastery goal orientation.

In addition, locus of control has been shown to positively impact intention to continue (Korzaan and Morris, 2009); therefore, we confirm that relationship and posit:

Hypothesis 3: IT project professionals' locus of control is positively related to their intention to continue an IT project.

Preference for Consistency
Preference for consistency is a desire to conform to the past (Cialdini, Trost, & Newsom, 1995). Preference for consistency includes three dimensions: internal consistency, consistency with one's previous behaviors and actions; public consistency, an outward appearance of consistency to others; and others' consistency, wanting others to behave and act consistently. Individuals with a high preference for consistency may have a unique vantage point with their motivation to learn because those with a high preference for consistency experience cognitive dissonance more intensely and are more susceptible to dissonance effects (Nolan and Nail, 2014). It is natural within the context of working in IT to constantly be learning and keeping one's skills up-to-date due to the rapidly changing nature of technology. Therefore, individuals may be motivated to learn to consistently appear competent and up-to-date on their skills as professionals working on IT projects.

Furthermore, as previously mentioned, projects in and of themselves provide opportunities for learning (Damm & Schindler, 2002). Individuals with a high preference for consistency may also be inclined to indicate that they are motivated to learn because it is consistent with the learning opportunities inherent in working in a project environment. Therefore, we believe that a preference for consistency will positively affect mastery goal orientation.

Previous research has evaluated the relationship between preference for consistency and intention to continue and found no significant relationship (Korzaan and Morris, 2009); therefore, we confirm that relationship and posit.

Hypothesis 4: IT project professionals' preference for consistency is positively related to their mastery goal orientation.

Personal Investment
Personal investment is the perceived amount of time, effort, and energy an individual spends on an IT project (Korzaan, 2009). Personal investment is a type of psychological "sunk cost" that aligns closely with the concept of an "emotional sunk cost" (Keil, Mann, & Rai, 2000). It represents a resource already invested in a project that cannot be recouped or regained. However, instead of the investment being an organizational resource, it is a personal resource of one's time, talents, energy, and effort. It is an investment of oneself into the project. Embedded within the nature of the sunk cost effect is the hope of realizing some return on the investment. Therefore, learning new skills and abilities may be perceived as a way to gain something back from this investment of personal resources (time, effort, energy). The time, effort, and energy may not be able to be recouped; however, one may be able to gain new knowledge, skills, and abilities from the experience of working on the project. In essence, learning something new is a return on one's personal investment in the project. Additionally, a perception of a higher amount of time, effort, and energy spent on an IT project may result from new or more complex project tasks requiring learning in the project. Experiencing the benefits of learning inherent in the work already invested in the project may motivate the individual to continue the project because there is more to learn.

Further, work engagement—"a positive, fulfilling work related state of mind that is characterized by vigor, dedication and absorption" (Schaufeli, Salanova, González-Romá, & Bakker, 2002, p. 74)—is positively associated with mastery goal orientation (Chughtai & Buckley, 2011). The dedication facet of work engagement—defined as "an intense work involvement and encompasses feelings of inspiration, pride, enthusiasm, significance and challenge" (Chughtai & Buckley, 2011, p. 684)—relates most closely to personal investment because personal investment indicates the amount of work invested in the project.

Personal investment has been found to be positively related to outcome variables similar to intention to continue an IT project, including normative commitment (Brooks et al., 2021) and commitment to IT project objectives (Korzaan, 2009). Additionally, Sleesman, Conlon, McNamara, and Miles (2012) found in a meta-analysis of escalation of commitment literature that sunk costs and time investment have a positive relationship with escalation. While this paper focuses on decision-makers, we expect the same relationship for IT project professionals for the same reasons: they do not want others to perceive them as wasting organizational resources or time.

Hypothesis 5: IT project professionals' personal investment is positively related to their mastery goal orientation.

Hypothesis 6: IT project professionals' personal investment is positively related to their intention to continue an IT project.

3. RESEARCH METHODOLOGY AND RESULTS

A field study was conducted that included professional stakeholders involved with IT projects from Fortune 500 companies in the southern United States. IT project professionals were identified by a member of upper management in each company and selected as participants based on their current involvement in working on IT projects in progress at various stages throughout the development life cycle. IT project professionals, instead of project managers or primary decision-makers, were chosen to complete the survey in order to expand our knowledge in the literature on the dispositions, interests, beliefs, and perceptions of individuals closest to the project. In addition, IT project professionals have been shown to influence the course of action for a project, perform key roles in project success (Hans & Mnkandla, 2019; Valerdi & Majchrzak, 2003), and bring awareness to the overall team dynamics, operations, and status of the project. Furthermore, their needs and interests are often neglected (Hans & Mnkandla, 2019).

Construct	Item	Factor Loading	Average Variance Extracted	Composite Reliability
Intention to Continue (IC)	IC1	.93	.79	.94
	IC2	.95		
	IC3	.87		
	IC4	.81		
Mastery Goal Orientation (MGO)	MGO1	.79	.64	.84
	MGO2	.90		
	MGO4	.69		
Preference for Consistency (PFC)	PFC1	.73	.50	.80
	PFC2	.80		
	PFC3	.74		
	PFC4	.56		
Personal Investment (PI)	PI1	.80	.96	.86
	PI2	.98		
	PI3	.99		
	PI4	.94		
Locus of Control (LOC)	LOC2	.79	.56	.79
	LOC3	.90		
	LOC4	.69		

Table 2: Confirmatory Factor Analysis and Convergent Validity

Surveying IT project professionals currently working on an IT project will help identify these individuals' important interests, needs, and dispositions and provide valuable insight into how human capital can influence project outcomes. Therefore, a survey was developed, adapting items from existing measures (Appendix A), and administered online to IT project professionals. Survey questions were measured on a 7-point Likert scale. All construct items, except for intention to continue, are anchored by strongly disagree and strongly agree. The anchors for each of the items for intention to continue are provided in Appendix A.

The data were analyzed using structural equation modeling with AMOS 25. The two-step modeling approach was used to confirm the measures' validity, followed by testing the hypotheses and assessing model fit.

Data Analysis
Information is provided in Table 1 for participant demographics. There were 232 survey responses. The sample comprised approximately 60% men, 38% women, and 2% who did not indicate gender. Thirty percent of the participants were between 30 and 39 years old, 44% between 40 and 49 years, 14% between 50 and 59 years, 11% between 20 and 29 years, less than 1% were over 60, and less than 1% did not indicate their age. On average, participants had an average of 9.9 years of IT work experience, and 60% had a 4-year college degree.

Demographic Variable	Count	Percent
Age		
Between 20 and 29	25	11
Between 30 and 39	70	30
Between 40 and 49	103	44
Between 50 and 59	32	14
60 and above	1	<1
Did not respond	1	<1
Gender		
Women	88	38
Men	139	60
Did not respond	5	2
Education		
High school graduate	12	5
Some college	19	8
2-year degree	13	6
4-year degree	139	60
Master's Degree	43	19
Doctorate	3	1
Did not respond	3	1

Table 1: Demographics

Measurement Model Validity
Results from the convergent and discriminant validity analysis are provided in Table 2 and Table 3.

We removed LOC1 because the average variance extracted for LOC was less than .5 and because LOC1 had the lowest factor loading. We removed MGO3 and MGO5 because the correlation between PI and MGO was .57 and because MGO3 and MGO5 factor loadings were lowest.

	IC	MGO	PC	PI	LoC
IC	**.89**				
MGO	.44	**.80**			
PC	.15	.40	**.71**		
PI	.27	.55	.17	**.93**	
LoC	.29	.37	.23	.16	**.75**

Notes: The numbers in bold shown on the diagonal are the square root values of the average variance extracted. The numbers below the diagonal are correlation coefficients. IC = intent to continue, MGO = mastery goal orientation, PC = preference for consistency, PI = personal investment, LoC = locus of control
Table 3: Discriminant Validity

In the final measurement model, convergent validity was confirmed with all construct items loading at .50 or higher and significant at p < .001 (Hair, Black, Babin, & Anderson, 2019; Fornell & Larker, 1981; Fang & Li, 2022; Hanaysha, 2022). Composite reliabilities for all constructs were above .70. All of the average variance extracted values were .50 or greater. All thresholds were met to confirm discriminant validity, demonstrated by the correlations between constructs being less than the square root values of the average variance extracted. VIF values were evaluated to test for multicollinearity. The VIF values range from 1.09 to 1.32, which are below the threshold of 3 indicating that multicollinearity is not an issue (Hair, Risher, Sarstedt, & Ringle, 2019).

Hypotheses Testing and Structural Model
The model fit assessment and hypothesis testing results are provided in Table 4 and Table 5. All hypotheses were supported except H6; personal investment was not found to significantly influence intention to continue. The model explains 17% of the variance in intention to continue and 27% of the variance in mastery goal orientation. The final model is shown in Figure 2. We ran the model with control variables for

gender (**β**=.06; p=.363), education (**β**=.07; p=.243), and age (**β**=-.02; p=.703). The results indicated that none of the control variables were significant at the p=.05 level.

Fit Measures	Thresholds	Structural Model
Chi-square		.139
p-value	>= .10	.709
AGFI	>= .95	.996
NFI	>= .95	.999
Evaluation		Good Model Fit

Table 4: Model Fit Evaluation
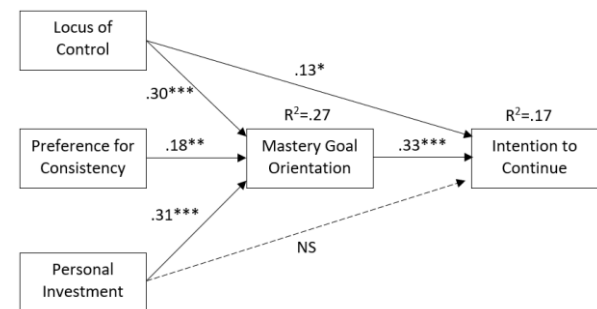
Figure 2: Final Model

In the next section, we discuss an additional analysis performed to evaluate the possibility of a full mediation through mastery goal orientation, explaining the non-significant relationship between personal investment and intention to continue.

Post-hoc Analysis for Full Mediation
In considering why we did not find a significant relationship between personal investment and intention to continue, we performed a post hoc analysis to see if the relationship between personal investment and intention to continue is fully mediated by mastery goal orientation. When mastery goal orientation is removed from the model, the relationship between personal investment and intention to continue is significant

Hypothesis	β	S.E.	p	Result
Mastery Goal Orientation -> Intention to Continue	.33	.105	< .001	Supported
Locus of Control -> Mastery Goal Orientation	.30	.051	< .001	Supported
Locus of Control -> Intention to Continue	.13	.087	.046	Supported at the .05 level
Preference for Consistency -> Mastery Goal Orientation	.18	.050	.002	Supported at the .001 level
Personal Investment -> Mastery Goal Orientation	.31	.063	< .001	Supported
Personal Investment -> Intention to Continue	.07	.107	.278	**Not Supported**

Table 5: Hypothesis Testing

and positive at the .01 level. When mastery goal orientation is included in the model, the relationship between personal investment and intention to continue becomes non-significant, indicating full mediation by mastery goal orientation, according to the Baron and Kenny (1986) method for testing full mediation. An analysis was also conducted using the Hayes SPSS Process Macro (Abu-Bader & Jones, 2021), which further supported this finding showing a significant indirect effect of personal investment on intention to continue of .24 and a non-significant direct effect of personal investment on intention to continue when controlling for mastery goal orientation (the mediator). Therefore, the result of these analyses confirms that mastery goal orientation does, in fact, fully mediate between personal investment and intention to continue. The total effect on the dependent variable (intention to continue) that is accounted for through the mastery goal orientation mediator is approximately 73%. The details of this analysis are provided in Figure 3.
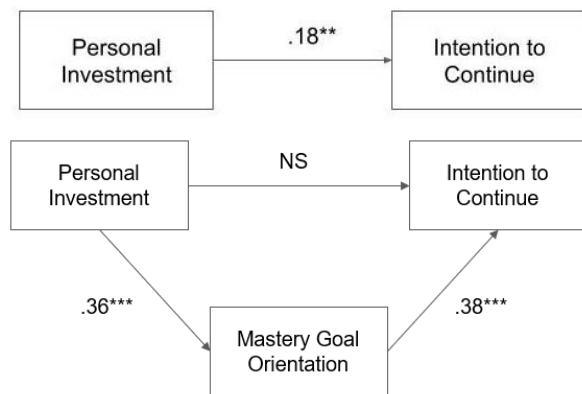
Figure 3: Test for Full-Mediation - Mastery Goal Orientation

4. DISCUSSION

This research contributes to the literature by testing a model that furthers our understanding of how goal orientation theory, personal investment, and individual characteristics play a role in IT project continuation intentions. The model explains 27% of the variance in mastery goal orientation and 17% of the variance in intention to continue. The central theoretical construct, mastery goal orientation, was found to positively influence the intention to continue an IT project. Locus of control, which was previously shown to positively impact the intention to continue (Korzaan & Morris, 2009), was also found to indirectly affect the intention to continue through mastery goal orientation. Personal

investment significantly influenced mastery goal orientation; however, the relationship between personal investment and intention to continue was not non-significant. A post hoc analysis revealed an unexpected theoretical contribution finding that this non-significant relationship is explained by being fully mediated through mastery goal orientation. This study also contributes to the literature by expanding our understanding of the psychological factors at work in IT projects. While there is more to be learned about the composition of the project team, psychological factors, and the management of the human element in IT projects, this study takes a step in advancing our understanding in this area by applying goal theory, escalation theory, and personality traits to predict mastery goal orientation and in turn, its impact on intention to continue an IT project. This study confirms the importance of paying attention to the needs and interests of the professionals working on the IT project (Hans & Mnkandla, 2019)—especially for those with high motivations for mastery goal orientation, who need to have the opportunities to learn and develop new skills and abilities. This interest in learning is especially attenuated when the IT project professionals are working on projects where they feel they have already invested significant time, energy, and effort on the project, for individuals with a high preference for consistency and an internal locus of control.

This study offers several practical implications. First, human capital may play a role in the success of IT projects far beyond the project definition, scope, and management problems. We recommend hiring managers choose those who exhibit locus of control, preference for consistency, and personal investment. These individual characteristics make IT project professionals eager to learn and master the skills needed to get the job done. Future research can investigate other personality traits or states that can also lead to favorable outcomes, such as the personality big five constructs.

Second, IT project managers can motivate IT project professionals to continue working on the IT project by providing opportunities to learn the skills needed to get the job done. Periodic professional development workshops can be scheduled for every deliverable milestone. We advise that this schedule be shared detailing the outcome and skills learned from the workshops early on. Future research can look at what skills to be offered based on IT project professionals' tenure, job type, and generational differences to

help organizations tailor specific workshops based on the needs of their employees.

Third, organizations are well-advised to acknowledge that even though IT project professionals are getting paid to do the job, IT project professionals perceive that they are personally invested in the IT project beyond the salary they get. While the escalation of commitment is the perspective of the organization that invests a lot in the project, a parallel of that kind of commitment can be derived from IT project professionals by offsetting their sunk cost. It may be good to have dedicated employees who spend effort and time on the job, but this alone will not guarantee that they will continue working on the project. One way to alleviate that is by signaling them how much they can learn on the job and fulfill their mastery goal orientation needs. Acknowledging that the influence of personal investment will only impact the intention to continue through mastery goal orientation, IT project managers are well-advised to communicate to their teams about the trajectory path of skill development from the start of the project and reinforce it during their routine meetings. Future research is urged to look at contextual factors that may strengthen the relationship between personal investment and mastery goal orientation, such as age and gender.

Fourth, IT project professionals who are high on preference for consistency can succeed in IT projects. Specifically, neurodivergent professionals who might feel distressed if change happens can be accommodated by providing them with workshops to learn the skills needed on the job. This study starts the conversation about hiring a neurodivergent workforce in the IT project context, contributing to other streams of research about the inclusion and contribution of neurodivergent IT professionals in the software development context (Annabi, Sundaresan, Zolyomi, 2017).

A limitation with field study data is the inability to verify causality in the model. Future research can address this limitation by conducting controlled experiments on the constructs of interest. Also, because projects (especially larger ones) may be ongoing for a significant time, it would be beneficial to see if the influence of the individual characteristics investigated in this study change over the project's life. Therefore, longitudinal research is another recommendation for future study. A limitation in the data collection is that objective project performance information was not attainable. Actual project status information would provide greater insight into the degree to which the project is experiencing or at risk of experiencing the escalation of commitment to a failing course of action. Escalation of commitment in IT projects is where the decision to commit additional resources to the project is increased when the project is troubled. Therefore, greater insight into this phenomenon could be gained if objective project status information (on time, within budget, meeting requirements) was available.

This study raises an intriguing scenario for future research to partial out when mastery goal orientation and intention to continue a project have positive effects on project outcomes and when it has negative connotations on the project by contributing to project escalation. In the context of a troubled project, a mastery goal might be detrimental because it could lead to team members influencing decision-makers on a course of action of the project towards escalation. Future research could look more specifically at the influence of IT project professionals on the decisions made in IT projects.

In addition, there is an opportunity for future research to investigate the impact of psychological constructs, including individual needs and interests, on the actual turnover of IT project professionals. For projects not escalating out of control, a mastery goal orientation appears to fuel the motivation for professionals to be committed to persist and continue with the project; thereby, making them less likely to quit or leave the project. Neglected needs and interests of IT project workers can lead to project challenges such as turnover (Hans & Mnkandla, 2019). Turnover on IT projects is a significant risk to the success of projects gaining more attention in recent literature (Hans & Mnkandla, 2019; Etemandi, Bushehrian, & Robles, 2022). Although we did not measure an intention to leave the project team specifically, it is reasonable to conclude that if an individual intends to continue with a project, then they are not going to be inclined to quit or leave it. Future research is called for to more clearly delineate when a mastery goal orientation lowers actual turnover on the project and results in a project environment that leads to motivated, committed professionals who are dedicated to working toward the successful completion of a project.

There is also a need for future research to provide a deeper understanding of the role of preference for consistency in IT projects. Future research could investigate potential contextual moderating factors on the relationship between preference for

consistency and mastery goal orientation. According to Bator and Cialdini (2006, p. 229), "the role of consistency motivation can only be fully understood when factors of the person and the situation are considered conjointly." Therefore, an opportunity for future studies is to investigate the interaction of the preference for consistency with contextual factors such as project characteristics, project status, team norms and values, and organizational factors.

5. CONCLUSION

IT project success is crucial for organizations that can lean on their human capital to thrive and preserve their competitive advantage. Having IT project professionals with high levels of locus of control, preference for consistency, and personal investment in projects can ultimately lead to their intention to continue working on the IT project. IT project managers can help build their commitment to continue working by providing opportunities to develop their skills on the job. While it is the norm for IT professionals to switch jobs frequently due to salary reasons, our work offers hiring managers another avenue to attract and keep their IT project professionals through fulfilling their mastery goal orientation needs.

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APPENDIX A
Measurement Items

Behavioral Intention to Continue (Korzaan & Brooks, 2015; Bhattacherjee, 2001)

Given the choice of whether or not to continue this project, how likely is it that you personally would:

1. Continue with the project. (anchored by "would not continue" and "would continue")
2. Persist until the project is completed. (anchored by "would not persist" and "would persist")
3. Continue with the project as planned. (anchored by "would not continue" and "would continue")
4. Keep investing resources in the project. (anchored by "would not keep investing" and "would keep investing")

Mastery Goal Orientation (Elliot & Church, 1997)

Consider your personal beliefs and feelings related to the project you are currently working on:

1. I want to learn as much as possible from working on this project.
2. It is important for me to understand this project as thoroughly as possible.
3. I hope to have gained a broader and deeper knowledge of systems development when I am done with this project.
4. I desire to completely master the tasks I am working on for this project.
5. On a project like this, I prefer to work on tasks that really challenge me so I can learn new things.

Locus of Control (Lee & Tsang, 2001; Levenson, 1974)

To what extent do you agree or disagree with the following statements about yourself in general:

1. When I get what I want, it is usually because I worked hard for it.
2. My life is determined by my own actions.
3. When I make plans, I am almost certain to make them work.
4. I determine what will happen in my life.

Preference for Consistency (Cialdini et al., 1995)

To what extent do you agree or disagree with the following statements about yourself in general:

1. It is important to me that those who know me can predict what I will do.
2. I want to be described by others as a stable, predictable person.
3. The appearance of consistency is an important part of the image I present to the world.
4. An important requirement for any friend of mine is personal consistency.

Personal Investment (Keil, 1995; Dholakia & Bagozzi, 2002; Taylor & Pierce, 1999)

Consider your personal beliefs and feelings related to the project you are currently working on.

1. I have worked particularly hard at doing a good job on this project.
2. I have already spent a great deal of energy on this project.
3. I have invested a considerable amount of effort on this project.
4. I have put in a great deal of time on this project.