NARCISSISTIC LEADERSHIP AND PROJECT SUCCESS IN IT INDUSTRY: MODERATING THE ROLE OF RISK MANAGEMENT TECHNOLOGY

Tahreem Ali¹, Waqar Akbar²*, and Juliyana Usman Wachani³

ABSTRACT

Narcissistic leaders supersede others’ opinions while dealing with different projects is an area of concern because they create the risk for various projects’ success. However, risk management technology can balance this leadership to mitigate the project failure risk. Therefore, this study aims to examine the impact of narcissistic leadership on project success with the moderating role of risk management technology. A self-administered questionnaire measured the narcissistic leadership constructs with two dimensions (i) admiration, (ii) rivalry as antecedents, risk management technology as moderating construct, and project success with five dimensions (i) cost (ii) schedule (iii) quality (iv) performance and (v) operating environment as an outcome from 242 IT professionals working in IT firms. Using structural equation modelling, the results reveal that narcissistic admiration has a negative significance, but the narcissistic rivalry has no significant impact on project success. Therefore, it suggests that narcissistic admiration is associated with positive attributes such as high esteem, envy, forgiveness, etc., with an overall motivation to focus on achievements may benefit in success of the project. The results further reveal that risk management technology has no moderating role between narcissistic admiration and rivalry with project success, which suggests risk management technology is not enough to reduce the narcissism leadership to contribute to project success. The study is helpful for organizational development (OD) professionals, project leaders, and IT firms. The study also provides a new avenue of investigation for academic researchers to tighten up the gap in narcissistic leadership.

Keywords: Narcissism; Narcissistic Leadership; Project Success; Risk Management Technology; Information Technology (IT) Industry.

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INTRODUCTION

Leader style can significantly impact any project, ongoing operational activity, team members behaviour, work productivity and existing or new product development process (Darawong, 2020), as the leader is the one who makes the most critical decisions on how to frame the project from its initiation phase to the final result. Therefore, it is essential to evaluate the behavior traits of leaders (Pinto & Patanakul, 2015). If a project is derailed, it can be a precarious challenge to an entire organization. From the research perspective, ample literature is available that focuses on the importance of integrating personality and leadership. As for any project, the role of followers and leaders is an integral part of the leadership that can entitle the project towards success (Hassan et al., 2017; Zaman et al., 2020). However, there is a dearth of literature regarding how projects can be associated with physiological factors that make an individual's personality matching to the leading roles (Wu et al., 2019).

While various leadership styles have been documented in the literature and their relationship with success or failure to projects, narcissistic leadership is one of the vital styles which may cause to fail the projects and require the attention of employers, practitioners and researchers (Asad & Sadler-Smith, 2020, Germain, 2018a). Narcissism can be defined as a psychological state or a personality disorder that strives for a sense of self-worth, self-obsession, different feelings of entitlement, need for admiration, and other personality traits (Al-Abrow et al., 2018; Yakeley, 2018). Narcissistic leaders always try to dominate their subordinates (Schmid et al., 2021). The concept of narcissism is also considered a pattern that revolves around oneself and self-importance because this pattern is also linked with abnormality (Germain, 2018b). Narcissism leadership style has a very dark side associated with it as they are considered emotionally isolated and are not trustworthy in people's eyes (Carnevale et al., 2018). They are also self-absorbed and hold beliefs of entitlement and superiority. Their aggressive tendencies in the face of criticism and inclinations to validate self-worth by insulting or derogating others lead to perceive them as abusive, which would adversely affect the project's impact, thus directing the project towards failure. Because of this, the organization would have greater internal competitiveness when everyone is already under as much pressure as they can stand (Maccoby, 2018). All personality traits associated with narcissistic leadership would hinder project success, which means the projects are very likely to fail if they are not controlled adequately. Therefore, it is essential to evaluate and explore the positive side of narcissism and how these personality traits can be controlled and utilize in favor of project success (Brooker, 2020).
It is essential that narcissistic leadership needs to be managed in a way where it can benefit the overall organization, and this can be done using the risk management technology factor moderating variable for any project as a way to see if it is having a significant impact on narcissism, such that it can lead to project success (Leary & Ashman, 2018). Risk management technology is the process of identifying, assessing, and controlling threats to an organization's capital and earnings (Willumsen et al., 2019). Every business and organization might face the risk of unexpected, harmful events that can cost the company money or even cause it to permanently close (Maccoby, 2018). Risk management technology allows organizations to prepare for the unexpected by minimizing risks and extra costs before they happen (Tupa et al., 2017). Implementing risk management technology would result in considering the various potential risks or events before they occur. Thus, an organization can save money and protect its future by pre approach in implementing risk management technology (Force, 2018). This may help organizations establish procedures to avoid potential threats, minimize the impact before they occur, and cope with unforeseen results.

Though narcissist leaders revolve around self-importance, they have great to offer as they are enchanting when it comes to convincing people to do what they think is right; hence, they accomplish their objectives efficiently. This trait can benefit various organizations where the employees have to meet strict deadlines, fulfill customer needs, and be available 24/7. IT industry is one of such industries where such leadership may exist as the leaders in the IT industry sometimes have to make some tough calls to ensure that project is entitled to success and for this, they need people who would complete their assigned tasks without questioning and be submissive to their decisions (Brooker, 2020; Khan et al., 2020; Sunarsi et al., 2021). Therefore it is essential to control the narcissistic behavior, and to do this, risk management technology can act as one of the moderating variables to see if this style of leadership and personality traits would not let the project abandon and face failure (Carnevale et al., 2018). Thus, the broader aspect of this research is to fill the gap in narcissistic leadership literature by seeking its role in the success or failure of project management, particularly in the IT industry, with the moderating role of risk management technology.

**LITERATURE REVIEW**

Information technology in project management has been gaining significant importance as this is one of the leading industries with profusion to offer, but it is not an easy task (Haq et al., 2018). For any project, certain factors act as vital indicators to project success. These factors
are correlated to each other, hence compromising on any factor would have an impact on others; therefore, it becomes essential that the project tasks planning, organizing, monitoring, and controlling are prepared within the Project Management Institute (PMI) framework to ensure the project is not obstructed at any point (Doskočil & Lacko, 2018). To follow the framework, there are different knowledge areas, each one has its significance, but the risk management technology process is the most complex and dynamic aspect of any project. As per PMI, a project life cycle consists of five stages: initiation, planning, execution, controlling, and closing. Project risks can be defined as the undesired events that might result in delays to the actual deadline, over budgeting, unsatisfactory results, thus leading the project to failure (Deshmukh et al., 2020). Project risks may occur because of any specific task resulting in uncertainty, complexity, shortage of resources or equipment, etc. While no project can be entitled to a risk-free assignment, it is imperative to prepare for risks that might derail the project towards failure, and this can only be done by adding different risk management technology activities to different phases of the project (Haq et al., 2018).

Risk management technology is an operation that defines the way to deal with risk. An effective risk management technology process is essential for a successful part of any IT program. The main goal of an organization's risk management technology process is to protect the organization and its abilities to perform its mission. Consequently, the IT professionals who manage and run IT systems should never overlook the subject of risk management technology but should always consider it as a significant operations management of the organization (Tupa et al., 2017). Therefore, risk management technology can be defined as a process that starts before the initiation process and continues even after the project closing, depending upon the internal and external factors.

Ensuring the project would lead to success, risk identification is made to see the associated risks that would derail the overall project (Willumsen et al., 2019). Risk identification is the first step in risk management technology (Samimi, 2020) as risks identified at earlier stages would be less costly and require less time to be resolved rather than if they are being recognized at later stages of project for instance, during execution, risks identified at this stage will need lots of efforts, time and cost and would even hurt the project negatively (Zhang et al., 2018).

Additionally, apart from identifying project risks, certain other factors affect the success of the project. One of the most important aspects of a project is the leadership that will decide how to complete the project within the constraints of budget, time, and scope to entitle it as a successful project. Narcissism is hence one of the traits associated with leaders, it defined as a persistent
pattern of grandiosity that lacks empathy and strives for excessive self-admiration (Buchholz et al., 2020). This research aims to evaluate if this personality trait can be controlled using risk management technology as moderating variable and cause a positive impact on project leading to its success. As narcissism of leaders significantly impacts decision-making in an organization it triggers the ongoing operations of project management. There is a possibility that narcissist leaders' decisions and suggestions can result in higher risks, thus derailing the project towards failure. Therefore, it is essential to control this behavior and use the personality traits of leaders to benefit the organization, and there is a possibility that it can be done through risk management technology. As if the risks associated with projects are already known, decisions are made accordingly, and hence it eliminates the chances of making wrong decisions that would result in project failure.

Underpinning Theory

Freudian Psychoanalytical Theory

The psychoanalytical theory has been most successful for providing a comprehensive description to understand the complexity of narcissism and its personality traits (Cragun et al., 2019; Allcorn & Stein 2021). According to Freud's psychoanalytical theory, an individual's personality develops and evolves through a series of stages. Each stage it generates can be characterized by a certain level of internal psychological conflict. This theory supports the idea that the personality develops along with the interactions among the mind's three main components, namely ID, EGO, and SUPEREGO (Brooker, 2020). This theory mainly focuses on shaping an individual's behavior and personality through unconscious psychological conflicts. (Cragun et al., 2019).

Narcissism has been studied in psychology for a very long time, but its research on narcissistic leadership in the IT sector and its impact on firms have emerged recently (Al-Abrow et al., 2018). The concept of narcissism is defined as a personal characteristic inclined towards self-worth, self-obsession, different feelings of entitlement and a sense of admiration. (Maccoby, 2018). Despite all these personality traits, it has been reported that Narcissistic leaders can also boost successful decision-making using certain factors that can positively impact an organization as an individual's character plays a pivotal role in forming his organizational behavior (Back et al., 2013). But for this, it is essential to control this behavior in a way that yields positive outcomes. (Cragun et al., 2019). The context of this research is to see the impact of narcissistic leaders in an organization towards project success, with risk management technology acting as a moderating variable between narcissistic leadership and project success.
Narcissism Leadership: Theoretical Perspective

Narcissistic leaders can influence their firms in several ways. To be precise, two conventional ways in which they can have a significant impact on their firms are described as follows:

1) Firm Performance

Several studies have examined the narcissistic leadership style and how it affects firm performance in the IT industry. In this regard, Brooker (2020) claims that narcissistic leaders affect the performance extremes of an organization, resulting in returns on assets (ROA) in a short period. Similarly Cragun et al. (2019) supports the idea that narcissism can relate to the firm performance only if it is controlled by many factors, including organizational risks, organizational resilience, etc. which would result in the successful completion of IT projects and hence increasing the overall performance of an organization (Tupa et al., 2017).

2) Risk-Taking Ability

A link is established between narcissism and risk-taking abilities. This claim has been supported by Pimchangthong & Boonjing (2017) when they found that narcissistic leaders tend to make riskier decisions to get recognition or even manipulate the policies to get desired results. They are most likely to make such decisions without fearing the outcomes. As things advance at a breakneck pace in IT, leaders need to adopt a risk-taking ability to maintain a competitive edge against their competitors (Braun, 2017). While narcissistic leaders tend to present a bold vision of the future, which makes them more charismatic in the eyes of others, people working under them acknowledge and accept their risk-taking ability (Anninos, 2018).

RESEARCH HYPOTHESIS

Four dimensions of narcissism as a personality variable have been delineated: leadership/authority, superiority/arrogance, self-absorption/self-admiration, and rivalry (Hardaker & Tsakanikos, 2021). Over the years, the research on narcissism has advanced in many ways, but it was highly influenced by the presence of the Narcissistic Personality Inventory (NPI) (Grove et al., 2019). Based on this, a new concept was proposed known as Narcissistic Admiration and Rivalry Concept (NARC). This concept has two dimensions, admiration and rivalry, which are distinct in their ways but can be used to define the personality traits of an individual (Jordan et al., 2021). The present study has taken these two dimensions because one is a positive aspect and the other is a negative aspect of narcissistic leadership. The two dimensions are discussed below to support the proposed hypothesis to be empirically tested in this study.
i) Narcissistic Admiration

The first dimension, narcissistic admiration, represents the self-enhancing and assertive behavior of narcissism. This dimension is mainly affiliated with grandiose fantasies, which strive for uniqueness and self-promoting behaviors (Rogoza et al., 2018). These behaviors are most likely used to boost the narcissistic ego. However, narcissistic admiration is primarily associated with positive attributes such as high esteem, gratitude, envy, forgiveness, etc., with an overall motivation to focus on achievements. Therefore we hypothesize that:

**H1:** There is a negative impact of narcissistic admiration on project success.

ii) Narcissistic Rivalry

The second dimension, narcissistic rivalry, represents the self-defensive and antagonistic aspect of narcissism which is characterized by devaluing and diminishing other people, striving to gain supremacy among others and hostile behaviors. This dimension is most likely to get involved in social conflicts that may threaten a person's ego in terms of social interaction (Rogoza et al., 2016). Related to this connotation we we hypothesize that:

**H2:** There is a negative impact of narcissistic rivalry on project success.

Risk management Technology: As a Moderating Variable

In project management, risk management technology is the process that includes identifying, evaluating, preventing, or mitigating risks that have the potential to derail the project's success. This is the responsibility of the project managers to eliminate or minimize the potential problems that may negatively impact a project's lifecycle (Deshmukh et al., 2020). In a project, there are numbers of risks associated that may derail the project and lead it to failure only if they are not appropriately handled as risks are events that are unpredictable most of the time; thus, they need proper action to minimize their impact on the project success (Willumsen et al., 2019). The project manager should only understand different risks associated with the project to be appropriately managed (Deshmukh et al., 2020). As every project is different from other, each project will have its own factors that will be considered while dealing with risk management technology The most common types of risks associated with the project areas are (Tupa et al., 2017) (i) Cost: The risks that have the potential to impact the budget, in a way that the project would be completed over budget. The main reason behind this risk is the error
in cost estimation (Force, 2018) (ii) Schedule: These risks are associated with the delaying of the project as planned because of unplanned scheduled conflicts which cause the delay in the delivery of the project (iii) Performance: The risks that cause the project to produce results that are inconsistent with what was specified earlier are known as performance risks (Demirkesen & Ozorhon, 2017). All these risks are interrelated to each other, and a change in one parameter can affect the others. In the context of this research, risk management technology acts as moderating variable to see if it can have an impact on the personality traits of narcissistic leaders such that it might lead the project towards success (Rogoza et al., 2016).

The most important aspects of risk management technology is identifying the risks in the project, and once the project managers can do so, they can then plan to establish an understanding of how the identified risks will impact the project outcomes and what can be done at the earliest to reduce their effects (Doskočil & Lacko, 2018). This can only be done when the risk management technology process starts from the project's initiation phase to minimize a risk that may occur during the project life cycle to hamper its success (Willumsen et al., 2019). If a narcissistic leader is aware of the risks associated with a project, then he is likely to consider them while making their decisions, thus eliminating the chance of derailing a project by making a wrong decision for the sake of getting recognition (Brooker, 2020; (Zhang et al., 2021). Thus, based on above literature, we hypothesize that:

\[ H_3: \text{Risk management technology moderates the relationship between narcissistic admiration and project success.} \]

\[ H_4: \text{Risk management technology moderates the relationship between narcissistic rivalry and project success.} \]

Risk Management Technology - Project Success
Risk management Technology identifies the project's strengths, weaknesses, opportunities, and threats. To ensure a project's success, it is imperative to define how to deal with potential risks to identify, mitigate, or avoid problems when you need to, thus directing a project towards success. Project success can be defined as meeting its goals and objectives under budget and schedule. Different factors determine it. These factors are measured to define the success of the project. The utmost project success criteria include measuring the project's outcome as per the client's requirements, customer, and stakeholders. It can also be measured in terms of effectiveness while delivering the project deliverables and satisfying the
stakeholders. Therefore project success factors include a set of activities, tasks, or elements that must be met for the successful completion of a project.

Any project is considered successful if it can achieve the business objective of the project but it is essential to define the success criteria of the project during its initiation phase. At the initiation phase, the project success can be defined at three levels (i) Project Completion Success: The project completion success is defined by five constraints; scope, schedule, budget, environments, and quality. This criterion of success is limited to the project lifecycle. Therefore, it can only be measured during the project lifecycle and soon after the project reaches its completion (ii) Results in Success: It is about defining the product or service criteria by which the project is deemed successful. This can only be measured once the service or product is implemented per the defined timeline (iii) Development Success: This is about defining success criteria by which the service/product could add value to the organization. In this research, Project success is the dependent variable that depends upon the narcissistic style of leadership and discards if it can be controlled in a way using risk management technology as moderating variable to lead the project towards success (Pimchangthong & Boonjing, 2017).

HₐA: There is a positive relationship between risk management technology and project success.

**Figure 1. Conceptual Framework**

![Conceptual Framework](source)

*Source: (Al-Abrow et al., 2018)*

The conceptual framework for this study was developed based on the study of Al-Abrow et al. (2018). However, the present research conceptualizes Narcissistic Admiration and
Narcissistic Rivalry as independent variables, whereas Project Success is taken as the dependent variable. This study also examines the role of Risk Management Technology in moderating the relationship between narcissistic admiration and narcissistic rivalry with project success.

**METHODOLOGY**

An online questionnaire is prepared to survey IT professionals working in software companies. The survey was conducted to measure narcissist leaders’ behavior and see if it impacts project success or failure. Data gathered from the questionnaires are evaluated and reviewed to conclude if risk management technology is used as a moderating variable and how it will control narcissism so that the outcome is successful. The approach of this study is deductive as it is going to test the existing theories. Other researchers used a similar methodology was adopted by other researchers studying the same phenomena, such as organizational resilience and CEO narcissism on project success (Al-Abrow et al., 2018). The quantitative research orientation is suitable for testing theories and helps make deductive inquiries.

The research population for this study is professionals associated with the IT industry of Pakistan. The IT professionals have responded to the online questionnaire about narcissism leadership and types of narcissism admired or rivalry to see how these dimensions contribute to the project when risk management technology is present as a moderating variable. The data was collected from the employees working in various organizations in the financial services sector of Karachi. The statistical data of the population was not known, and therefore, the following formula for the unknown population was applied to calculate the sample size where 'Z' represented the value of 1.96 with a confidence interval of 95%, 'P' was assumed to be 50% to provide the maximum sample size and 'M' depicted the margin of error of ± 5.

\[ n = \frac{Z^2 \times p (1 - p)}{M^2} \]

The sample size based on the above formula turned out to be 384. However, the response rate was 63%, and therefore, the actual sample size comprised 242 respondents.

**Measurement of the Variables**

**Narcissism Leadership:** The narcissism leadership variable is measured by using a six-item NARQ scale (Back et al., 2013). As NARQ is based on the idea that narcissism can be decomposed into two positively correlated dimensions: Admiration and Rivalry. Both dimensions share the all-encompassing objective to maintain a grandiose self. Differentiating narcissistic admiration and rivalry can improve the comprehension of the determinants, cycles,
and outcomes of narcissism. Items were rated on a five-point Likert scale with 1 signifying strongly disagree and 5 showing strongly agree with the given statement.

**Project Success:** The project success variable is measured by Hughes et al. (2015), scale comprising of thirteen items divided as follows, cost (measured by three items), schedule (measured by two items), quality (measured by three items), performance (measured by three items) and operating environment(measured by two items). Items were rated on a five-point Likert scale with 1 signifying strongly disagree and 5 showings strongly agree with the given statement.

**Risk Management Technology:** The risk management technology variable is measured by (Øien, 2001), a five-item scale. The risk management technology variable includes questions that are considered critical factors for effective risk management technology procedures. Items were rated on a five-point Likert scale with 1 signifying strongly disagree and 5 showings strongly agree.

**Data Analysis Technique**
After the data collection phase, the data was analyzed through Structural Equation Modeling (SEM). SEM is considered more appropriate for data analysis in social sciences and management sciences research because of its ability to assign relationships between unobserved constructs (latent variables) and observable variables. The results were generated through SmartPLS3, which is software for structural equation modeling (SEM).

**DATA ANALYSIS**

**Table 1. Demographics**

<table>
<thead>
<tr>
<th>Categories</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid percent</th>
<th>Cumulative percent</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
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<td>145</td>
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<td>60</td>
<td>60</td>
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<tr>
<td>Female</td>
<td>97</td>
<td>40</td>
<td>40</td>
<td>100</td>
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<tr>
<td><strong>Age (yrs.)</strong></td>
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<tr>
<td>Less than 25</td>
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<td>25-35</td>
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<td>49.5</td>
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<td>16.5</td>
<td>16.5</td>
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<td>46 and above</td>
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<td>11.3</td>
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<tr>
<td>Masters</td>
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<td>31.40</td>
<td>87.59</td>
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<tr>
<td>PHD</td>
<td>30</td>
<td>12.41</td>
<td>12.41</td>
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</tr>
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</table>

**Profile Analysis**
As depicted in Table 1, most of the respondents in this research were male comprising approximately 60% of the total number of participants and 40% of the responses came from a
female. Almost 50% of the responses belong to age group ranging from 25 to 35 years, whereas the education level of 56% of respondents is Bachelors, 31% of the respondents have Master's level education.

Assessment of Measurement Model

It is important to evaluate the validity of the measurement model first before examining any model or testing the hypothesis. The first step includes determining if the scales used to collect data measure what they are supposed to measure. In empirical studies, to measure this establishment of construct validity is used. The construct validity can be determined by testing the convergent validity and discriminant validity.

Convergent and discriminant validity is measured by confirming "that, once cross-loading items are dropped, items load cleanly and exclusively on the factors upon which they are posited to load" (Straub et al., 2004). Indicator reliability is assessed through the item's outer loadings and Cronbach Alpha. The range of the Cronbach alpha scale and composite reliability is 0 to 1. If the value of an item is closer to 0, it shows low reliability and if the value is more relative to 1, it offers high reliability. The reliability of each scale measuring each variable are also reliable greater than .7. Therefore the results obtained from this scale can be considered reliable. Further, to find out the construct validity, it must be assessed whether the constructs under measurement behave in the same way as they are suggested to conduct in theory.

If all scale items are significantly loaded on their respective constructs, it shows that convergent validity is satisfactory. All items meet the threshold of 0.60 as recommended by Nunnally (1967), therefore all items are significantly loaded on their constructs. Another important measure to confirm the convergent validity is to assess the outer loadings of the indicators and the average variance extracted (AVE). AVE reflects the amount of variance that a construct portrays through its items relative to the ones derived from the measurement error (Chin, 1998). The acceptable value of AVE is above 0.5 for the convergent validity to be fair.

Composite reliability shows the internal consistency of each construct. According to Hair et al. (2010), the items hold satisfactory internal consistency reliability if the value of composite reliability is above 0.7. Table 2 provides the values of item loadings, Composite reliability, Cronbach alpha and AVE. All values meet the required threshold.
Table 2. Outer Loadings, Composite Reliability and Convergent Validity

<table>
<thead>
<tr>
<th>Construct</th>
<th>Dimensions</th>
<th>Item</th>
<th>Loading</th>
<th>CR</th>
<th>AVE</th>
<th>Cronbach's Alpha</th>
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<td><strong>Narcissistic Leadership</strong></td>
<td>Admiration</td>
<td>AD1</td>
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<td>RIV3</td>
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<tr>
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<td>RM3</td>
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<td>RM4</td>
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<td>RM5</td>
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<td><strong>Project Success</strong></td>
<td>Cost</td>
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<td>Schedule</td>
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<td></td>
<td>Quality</td>
<td>PS6</td>
<td>0.8155</td>
<td>0.8628</td>
<td>0.6772</td>
<td>0.7614</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PS7</td>
<td>0.8080</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>PS8</td>
<td>0.8448</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Performance</td>
<td>PS9</td>
<td>0.7286</td>
<td>0.8462</td>
<td>0.6482</td>
<td>0.7256</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PS10</td>
<td>0.865</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>PS11</td>
<td>0.816</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Operating Environment</td>
<td>PS12</td>
<td>0.9112</td>
<td>0.8989</td>
<td>0.8164</td>
<td>0.7755</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PS13</td>
<td>0.8958</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Discriminant validity is used to assess that items of a particular construct are not related to any other construct in the model and hence the correlation of items of different constructs should be below. This relates to the fact that the items for each construct measure a separate theoretical concept. The common measures of assessing discriminant validity are Fornell-Larcker Criterion and cross-loadings. This criterion tells the degree to which a construct is different from the other constructs in the model. The sub-factors of every construct should be diverse from those of other constructs. The values are shown in table 3 express the diagonal line of standards covering the AVE square root and constructs correlations. Discriminant validity is significant by checking that the diagonal line standards are greater related to their columns and rows as recommended by Fornell and Larcker (1981).

**Table 3.** Discriminant validity: Fornell–Larcker criterion

<table>
<thead>
<tr>
<th></th>
<th>(i)</th>
<th>(ii)</th>
<th>(iii)</th>
<th>(iv)</th>
<th>(v)</th>
<th>(vi)</th>
<th>(vii)</th>
<th>(viii)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Admiration</td>
<td>0.79</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ii) Cost</td>
<td>-0.68</td>
<td>0.82</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iii) Environment</td>
<td>-0.47</td>
<td>0.41</td>
<td>0.90</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iv) Performance</td>
<td>-0.59</td>
<td>0.71</td>
<td>0.44</td>
<td>0.80</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(v) Quality</td>
<td>-0.48</td>
<td>0.63</td>
<td>0.59</td>
<td>0.62</td>
<td>0.82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(vi) Risk Mgt. Tech</td>
<td>-0.50</td>
<td>0.54</td>
<td>0.60</td>
<td>0.56</td>
<td>0.7</td>
<td>0.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(vii) Rivalry</td>
<td>0.041</td>
<td>-0.13</td>
<td>-0.18</td>
<td>-0.09</td>
<td>-0.22</td>
<td>-0.27</td>
<td>0.91</td>
<td></td>
</tr>
<tr>
<td>(viii) Schedule</td>
<td>-0.56</td>
<td>0.75</td>
<td>0.33</td>
<td>0.64</td>
<td>0.55</td>
<td>0.42</td>
<td>-0.09</td>
<td>0.91</td>
</tr>
</tbody>
</table>

**Hypotheses Testing**

Results of the hypothesis testing of various structural models for this study have been explained below.

**Table 4.** Hypothesis Testing

<table>
<thead>
<tr>
<th>Hypothesis Testing</th>
<th>B</th>
<th>SD</th>
<th>T Statistics</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1→Admiration -&gt; Project Success</td>
<td>-0.449</td>
<td>0.0630</td>
<td>7.19</td>
<td><strong>0.00</strong></td>
</tr>
<tr>
<td>H2→Rivalry -&gt; Project Success</td>
<td>-0.040</td>
<td>0.0414</td>
<td>0.75</td>
<td><strong>0.45</strong></td>
</tr>
<tr>
<td>H3→Risk Mgt. Tech -&gt; Project Success</td>
<td>0.429</td>
<td>0.0658</td>
<td>6.61</td>
<td><strong>0.00</strong></td>
</tr>
</tbody>
</table>

As depicted in the above table narcissistic admiration hinders project success has been accepted. On the other hand, a narcissistic rivalry has no impact on project success therefore this hypothesis is not supported. Lastly, risk management technology has a positive impact on project success is significant therefore this hypothesis is accepted.
Moderating Effect of Risk management technology with Admiration and Rivalry Narcissism

Table 5. Hypothesis Testing (Moderation) Results

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>B</th>
<th>SD</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>H3-&gt; Adm-Risk Mgt-PS/F -&gt; Project Success</td>
<td>0.038</td>
<td>0.0502</td>
<td>0.77</td>
<td>0.44</td>
</tr>
<tr>
<td>H4-&gt; Riv-Risk Mgt-PS/F -&gt; Project Success</td>
<td>-0.006</td>
<td>0.0536</td>
<td>0.11</td>
<td>0.90</td>
</tr>
</tbody>
</table>

Narcissistic admiration with risk management technology acting as moderating variable has no impact on project success and this hypothesis is not supported. Similarly narcissistic rivalry with risk management technology acting as moderating variable has no impact on project success and this hypothesis is also not supported.

Figure 3. Path Diagram - Structural Model

DISCUSSION

The basic emphasis of this research was to understand the relationship between narcissistic leadership and project success when risk management technology is used as moderating variable between them. Narcissistic leadership is defined as a psychological state or a
personality disorder that strives for a sense of self-worth, self-obsession, and different feelings of entitlement, need for admiration, and other personality traits (Al-Abrrow et al., 2018). In an organization, a leader's behavior can significantly impact any project, ongoing operational activity, team members, existing or new product development, etc. (Maccoby, 2018; Pinto & Patanakul, 2015). In the context of this research, narcissistic leadership is described in two dimensions; Admiration and Rivalry, which are distinct in their way but can be used to define the personality trait of an individual (Jordan et al., 2021).

The results of this research show that there is a negative relationship between narcissistic admiration and project success. Narcissistic admiration represents the self-enhancing and assertive behavior of narcissism. This dimension is mainly affiliated with grandiose fantasies, which strive for uniqueness and self-promoting behaviors (Rogoza et al., 2018). These behaviors are most likely used to boost the narcissistic ego and thus they are barriers to project success (Grove et al., 2019). Similarly, the results also suggested that there is a relationship between narcissistic rivalry and project success. Therefore, narcissistic admiration becomes one of the aspects that can be studied further to see if this personality trait can be used in a way that would contribute towards project success as it is primarily associated with positive attributes such as high esteem, gratitude, envy, forgiveness, etc. with an overall motivation to focus on achievements (Anninos, 2018).

Risk management technology involves understanding potential problems that might occur on the project and impeding the project success; therefore risk management technology process becomes essential for the successful delivery of IT projects (Tupa et al., 2017). In this research, risk management technology acts as a moderating variable between two dimensions of narcissism leadership and project success to see if it can be controlled to yield positive outcomes. The results show that there is a negative relationship between narcissistic admiration and project success, while there is no relationship between narcissistic rivalry and project success. Moreover, risk management technology does not moderate the relationship between narcissistic admiration and narcissistic rivalry on project success (Willumsen et al., 2019). One of the main reasons for this is that narcissistic leaders are self-centered and rely heavily on their decision-making skills. The findings of this study align with (Al-Abrrow et al., 2018) and Back et al. (2013), where they found that managerial narcissism causes the risk to the organization as they are reluctant to consider potential problems that might arise in the project leading the project towards failure (Maccoby, 2018). In the presence of risk management technology, processes are conducted throughout the life cycle, so the risks associated with projects are
identified regularly; therefore, the results of this research highlight the positive relationship between risk management technology and project success (Carnevale et al., 2018). This research also opens the way to evaluate that if other variables are used along with risk management technology acting as a moderator there can be a possibility that narcissistic admiration can be controlled in a way that can lead a project towards success as it is primarily associated with positive attributes such as high esteem, gratitude, envy, charisma, all these personality traits if utilized appropriately can play their part towards project success. (Leary & Ashman, 2018).

**CONCLUSION**

The present research attempted to study the relationship between narcissism leadership and project success with risk management technology as moderating variable. Narcissistic leadership was evaluated in two dimensions; admiration and rivalry, where the results suggested that narcissistic admiration has a negative and significant relationship with project success, whereas narcissistic rivalry possessed no relationship with project success. The same relationship was also evaluated with risk management technology acting as moderating variable between the two, but it was found the narcissism leadership with risk management technology as moderating variable was not able to reduce the narcissism significantly such that it would have a positive impact on the project success. Project success in this research has been measured using five dimensions: cost, schedule, performance, quality, and operational environment. The results suggest that risk management technology has a positive and significant impact on project success. But risk management technology as an only moderating variable between narcissism leadership and project success is not enough to reduce narcissism leadership in a way that it can contribute towards project success, precisely the narcissistic admiration that is associated with positive attributes such as high esteem, envy, forgiveness, etc. with an overall motivation

**STUDY LIMITATIONS**

There were certain limitations observed while conducting this research.

- First and foremost, the subject of this research was only confined to professionals associated with the IT industry of Pakistan to study the impact of narcissistic leadership on project success.
- The present study holds a sample size of 242 employees serving in the IT industry, and hence this may question the generalizability of the results to a wider population.
Another limitation pertains to the outbreak of the COVID-19 pandemic, which restricted the collection of responses physically, and thus the research was heavily relied on gathering responses online.

Lastly, this research was carried out in a limited time duration of around four months only.

**RESEARCH IMPLICATIONS**

This study contributes towards extending the existing literature on narcissistic leadership specifically narcissistic admiration and serves to enrich the current understanding of this dimension to determine how it can contribute towards project success as it is associated with positive personality attributes such as high esteem, envy, forgiveness, etc.

It also aids to extend useful insights to the authoritative professionals in the IT sector to better demonstrate their leadership abilities by corresponding to the favorable dimension of narcissistic admiration to ensure the success of the different projects entitled to them. Though the concept of narcissism has its roots in projecting both favorable and unfavorable images, the findings of this research rely excessively on the former trait to ensure that the project always yields out victorious results.

**FUTURE RESEARCH RECOMMENDATIONS**

The current study paves the way for future investigators to conduct the research from a fresh perspective and further extend and enrich the existing literature on narcissism and project success.

- Project success is determined considering five important factors: cost, budget, performance, quality, and operational environment. This study can also be further extended by considering other variables to determine the generalizability of the results.

- The present research incorporates risk management technology as the only moderating variable. Thus, future studies could consider considering multiple variables comprising organization resilience and organization risk to better gauge the impact of narcissistic leadership on project success.

- The genre of the research was confined to Pakistan's IT sector only, and future studies can be replicated by opting for a handful of other industries consisting of educational institutions, the agricultural industry, and construction businesses, etc. to uncover the findings observed for undermining the relationship between narcissism and project success.
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Author(s) Contribution:
All authors have equally contributed to this research.
REFERENCES


[407]


