Journal of Leadership and Management®
An International Journal of Strategic, Behavioral and Public Aspects of Leadership in Management
Cabell's Listed
A journal of the Institute of Leadership and Management Association, PO Box 564, Douglassville PA 19518. 484-332-3331. https://www.jleadershipmanagement.org

# IT-Enabled Team Autonomy and Team Innovativeness

**U. Yeliz Eseryel, East Carolina University, eseryelu17@ecu.edu**
**Deniz Eseryel, Aurora Consulting**

| | |
|---|---|
| Online published: Jan 2026<br>Print published: Jan 2026<br>Editor: Sue Kong | Authorship Roles and Conflict of Interest Statement is on file at the Journal of Leadership and Management offices, available on request. Contact editors@jleadershipmanagement.org |

## Abstract

Team innovativeness is a critical driver of sustained competitive advantage, yet prior research has largely treated information technology (IT) as a homogeneous input to innovation, focusing on investment levels rather than how IT is enacted in teamwork. Drawing on work design theory and sociotechnical perspectives, this study introduces IT-enabled team autonomy as a key mechanism through which IT influences innovation. We conceptualize IT-enabled autonomy as the extent to which a team's use of IT affords discretion over work processes, decision making, and scheduling, and examine its effects on team innovativeness, operationalized through idea generation and idea implementation.

Using survey data collected from 150 team members, we empirically test the relationship between IT-enabled autonomy and team innovativeness. The results provide strong support for our hypotheses, demonstrating that IT-enabled autonomy has a significant positive effect on overall team innovativeness, as well as on both idea generation and idea implementation. These findings suggest that IT contributes to innovation not merely by providing resources or capabilities, but by structurally enabling teams to self-organize, experiment, and make timely decisions in their daily work.

This study makes three key contributions. First, it advances innovation research by unpacking how specific IT affordances shape team-level autonomy. Second, it extends IS literature by shifting attention from IT investment to IT-enabled work design. Third, it offers actionable guidance for managers, emphasizing the importance of selecting and configuring IT systems that enhance teams' autonomy in processes, decisions, and scheduling to foster sustained innovation.

KEYWORDS
*IT-Enabled Autonomy; Team Innovativeness; Idea Generation; Idea Implementation; Team Autonomy; IT Affordances*

Acknowledgements: The authors would like to thank Mr. Penghui Li for his contributions to data collection and analysis.

## Introduction

Innovativeness is a critical factor in teams' ability to create a sustainable competitive advantage (Kim, Min, & Cha, 1999). "In digitally mediated teamwork, innovativeness increasingly depends on how technology enables self-management, coordination, and distributed leadership in day-to-day work—not only on organizational resources."
(Eseryel & Eseryel, 2013; Eseryel, Crowston, & Heckman, 2021; Crowston et al., 2007)

A team's ability to innovate is recognized as one of the determinant factors for team to survive and succeed (Doyle, 1998; Quinn, 2000). Innovativeness is the capacity to an organization or system that can do things

new or different for adding value (Garcia & Calantone, 2002). Innovativeness could be measured by the number of new product or ideas (Garcia & Calantone, 2002).

Organizational innovativeness increases when teams have more autonomy and freedom in their work (Amabile, 1996). When members of an organization lack autonomy and freedom, they may be more restricted in their ideation, creativity, and resulting innovativeness. Nonautonomous teams tend to only adopt the most straightforward top-down decisions (Amabile, 1998).

According to Dibrell, Davis, and Craig (2008), for an organization or a team to have a capacity for sustained innovation, has to be guaranteed that they have not only the resources they need but also the structure or processes to deal problems creatively. This aligns with prior evidence that digital infrastructures shape how teams enact decision-making and coordination, which in turn influences innovation outcomes (Boonstra, Eseryel, & van Offenbeek, 2018; Eseryel, Wei, & Crowston, 2020).

In their analysis of the influence of product and process innovation on firms' financial performance, they found that managers' emphasis on Information Technology (IT), specifically the level of IT investments, played a significant mediating role (Dibrell, Davis, & Craig, 2008). While much research highlighted the importance of IT use or IT investments for firm innovativeness, all IT are not created equal. Building on this line of work, an important unanswered question concerns how IT matters for innovation, rather than simply how much organizations invest in IT.

Although prior research has demonstrated that IT resources and investments can enable innovation (Dibrell, Davis, & Craig, 2008), considerably less attention has been paid to the organizational and team-level structures through which IT is enacted in everyday work. Innovation at companies increasingly emerges at the team level, where creative problem solving depends not only on access to IT but also on whether teams are structurally enabled to use IT with discretion and flexibility (Negoita, Lapointe, & Rivard, 2018). In particular, when IT is configured to support self-organization and team discretion, it can create the conditions for idea generation and implementation to occur more continuously in distributed work (Eseryel, 2014; Eseryel, 2019; Crowston et al., 2007; Eseryel, Crowston, & Heckman, 2021).

Drawing on work design theory (Morgeson & Humphrey, 2006) and information systems research on affordances and sociotechnical systems (Leonardi, 2011; Sarker et al., 2019), we argue that a critical, yet underexplored mechanism is IT-enabled team autonomy—the extent to which a team's use of IT affords autonomy over work scheduling, decision making, and work methods or processes. This conceptualization also complements research streams on IT-enabled knowledge creation and IT-enabled open innovation, which emphasize that digital tools influence innovation by shaping how people create, share, and enact new ideas (Eseryel, 2014; Eseryel, 2024f). Accordingly, this study answers the research question of "How does IT-enabled team autonomy influence team innovation?"

## Literature Review

IT use is known to provide a competitive advantage for the implementation of strategic performance and the facilitation of core competencies (Dibrell, Davis, & Craig, 2008). Beyond investment and access, prior research suggests IT can enable innovation by changing leadership and self-leadership dynamics that guide how individuals and teams use technology in their work (Eseryel & Eseryel, 2013; Lehrer et al., 2021; Eseryel, 2020b; Eseryel, 2024b).

Das, Zahra, and Warkentin (1991) suggest that linking jobs, tasks and strategy to IT allows firms to compete mission more effectively. Information Technologies are seen as enablers and capacity builders for sustained innovation (King & Burgess, 2006). Using IT not only makes resources feasible for new products but also provides team-members with collaborative structures and processes to creatively deal with the problems and to connect the innovation with a current business (Bhaskaran, 2006).

### Team innovativeness

Product and service innovation is a vital part of the regular business processes (Eisenbeiss, Knippenberg, & Boerner, 2008). "*Innovativeness refers to the inclination for the organization to engage in innovative behavior*" (Auh & Menguc, 2005). Zaltman, Duncan, and Holbek (1973) pointed out that there are two stages

of innovation: initiation and implementation. This distinction is particularly important in IT-enabled contexts, where digital tools can accelerate not only idea creation but also the practical implementation of innovations by reducing coordination and execution barriers (Eseryel, 2019; Eseryel, 2014; Eseryel et al., 2014b). The initiation stage is also referred to as openness to innovation or new-idea generation. Levitt (1962) observed that "*being willing to destroy the old is the heart of innovation and the means to enormous profits*".

Research about team innovativeness and team innovation identified that team process is an antecedent of innovativeness. Thus, it is important to investigate factors related to team innovativeness. West's team climate theory (1990) suggests that support for innovation and climate for excellence are key factors in teams' ability to innovate. Specifically, team collaboration process that supports innovation and innovativeness is important for innovation. Lee and Runge (2001) found that IT is widely and successfully used in innovative teams. To understand the type of IT support these teams need, we need to understand how companies use teams. More and more, companies started depending on self-managing or self-leading teams. Self-managing and self-leading teams provide team members more authority over work processes (Stewart, Courtright, and Manz, 2011); Team members have the authority to recruit and fire their members, to build up their own schedules, to determine budgets, to order materials that they need, and to control quality (Barker, 1993; Stewart, Manz, & Sims, 1999). Empirical studies of self-organizing and self-managing technology-enabled teams show that internal governance and distributed decision-making are central mechanisms through which teams coordinate work and sustain participation over time (Eseryel, Wei, & Crowston, 2020; Crowston et al., 2007b; Wei et al., 2017; Wei, Crowston, & Eseryel, 2021). This trend increased the shift of power from team managers or formal team leaders to the members of the teams. Nowadays, more and more teams have authority over how to work together, how to schedule their work, and how to make decisions. This shift is important and it should be supported by the IT that the teams use to work together.

## Types of Support Provided By IT

While IT is widely and successfully used in innovative teams (Lee & Runge, 2001), investing in IT does not automatically lead to superior innovation or performance in teams (Powell & Dent-Micallef, 1997). The true source of competitive advantage is how IT is used for effective coordination and decision-making processes, in alignment with strategic innovativeness goals.

IT is not merely an input to innovation but a sociotechnical enabler that reshapes how teams organize, decide, and experiment in pursuit of novel outcomes (Leonardi, 2013; Negoita et al., 2018). Relatedly, research on competing logics in IT governance indicates that technology's effects depend on how stakeholders enact structures of control, discretion, and coordination around IT use (Boonstra et al., 2018).

This perspective moves beyond treating IT use or IT investment as homogeneous drivers of innovativeness and instead emphasizes variation in how IT structures team-level autonomy, which may be central to sustained team innovation. We call team-level autonomy provided by IT as "IT-enabled autonomy" and define it as a combination of (1) IT-enabled process autonomy, (2) IT-enabled decision autonomy, and (3) IT-enabled scheduling autonomy, following Morgeson and Humphrey (2006).

### *IT-Enabled Process Autonomy*

Research shows that innovative outcomes depend heavily on organizational climate, rather than individual talent (Ekvall, 1991). Key climate dimensions supporting high innovativeness require team members to freedom and autonomy about their work processes (Ekvall, 1991). Similarly, it was known for a long time that creativity and innovation, are not tied to personality traits, rather they are process problems (Osborn, 1963). Parnes (1992) summarizes 50 years of research, suggesting that innovativeness can be systematically developed through structured creative problem solving process.

Team process autonomy improves new product development speed, and consequently a company's innovativeness (Carbonell and Rodriguez-Escudero, 2011). Team autonomy enables a team local control over their task (process) and prevents interference from functional managers (Emmanuelides, 1993). Such autonomy contributes to the team's strong feeling of responsibility over the project's outcomes, which in turn leads to higher work effectiveness (Zirger and Hartley, 1994; Bonner et al., 2002).

Information Technologies that allow the generation of high quantity of ideas, enable group brainstorming that enables freewheeling, combination, and association of ideas by deferring judgement would increase

innovativeness in ideas. To apply it to the IT solutions, teams who use information technologies that allow them to choose and structure their creative problem solving process that fits their needs would be in a more advantageous position to innovate. Thus, there is a relationship the autonomy provided by a team's IT and that team's innovativeness: IT-enabled process autonomy allows teams to adapt, redesign, and experiment with new workflows and routines through digital infrastructures, a capability that is central to learning-driven innovation (Sarker et al., 2019; Moe, Stray, & Dingsøyr, 2018). From an implementation perspective, autonomy-supportive IT can increase implementation effectiveness by aligning technology with local practices and decision rights (Eseryel & Wolf, 2005; Eseryel & Eseryel, 2020c). Accordingly, IT-enabled process autonomy should support innovativeness by enabling teams to create and recombine knowledge, experiment with new practices, and adopt open-innovation behaviors in how ideas are developed and refined (Eseryel, 2014; Eseryel, 2024f; Eseryel et al., 2014b).

#### *IT-Enabled Decision Autonomy*

Autonomy is long known to increase motivation and therefore creativity in individuals. Decision autonomy in teams reduce decision-making time, thereby reduce product development cycle and helps teams to respond quickly to any environmental turbulence (McDonough & Barczak, 1991; Reilly et al., 2003). When a team has a high degree of autonomy over project decisions, team members are more likely to increase the information sharing, coordination, and creative consideration within the team (Hoegl & Parboteeah, 2006). Therefore, we expect IT-enabled decision autonomy in teams to increase team innovativeness.

#### *IT-Enabled Scheduling Autonomy*

First, IT-enabled scheduling autonomy allows teams to flexibly allocate time, sequence interdependent tasks, and adjust work rhythms as ideas evolve, supporting experimentation and iterative innovation (Leonardi, 2011; Parker, Van den Broeck, & Holman, 2017). For example, technology-supported self-organizing teams often rely on temporal coordination mechanisms—such as meeting rhythms and shared schedules—to synchronize interdependent work (Crowston et al., 2007a; Eseryel, Crowston, & Heckman, 2021).

Second, IT-enabled decision autonomy enables decentralized sensemaking and timely local decisions by reducing information asymmetries and dependence on hierarchical approval, which accelerates innovation cycles (Vaast et al., 2017; Yoo, Henfridsson, & Lyytinen, 2010). Such scheduling and timing discretion may be especially important when leadership is distributed and enacted through team members' technology use rather than centralized managerial control (Eseryel & Eseryel, 2013; Eseryel, Crowston, & Heckman, 2021).

Since "IT-enabled autonomy" is defined as the process autonomy, decision-making autonomy, and scheduling autonomy that IT provides team members with, we posit that;

***Hypothesis 1: IT-Enabled autonomy influences team innovativeness positively.***

***Hypothesis 1a: IT-Enabled autonomy influences (new) idea generation positively.***

***Hypothesis 1b: IT-enabled autonomy influences (new) idea implementation positively.***

Because IT-enabled autonomy is not solely a technological property but also reflects how IT is selected, configured, and encouraged in use, leadership may be an important practical lever for increasing IT-enabled autonomy in teams. Transformational IT leadership and related IT-based leadership behaviors can shape how individuals and teams take initiative with IT and enact self-leadership in their work (Eseryel, 2024b; Eseryel & Biernath, 2024; Eseryel et al., 2024d; Lehrer et al., 2021).

## Research Method

### Data Collection and Sample

The survey questions were adapted from well-known instruments in English, discussed by the co-authors, and translated into Chinese by the third author, and after pre-testing for meaning with 5 Chinese employees, the final survey was executed online. Overall, 200 questionnaires are sent out and 169 were filled out. 19 questionnaires were removed due to incomplete responses. Participants ranged in age from 26-40 years old. 61% of the employees' assigned gender at birth was male, and 39% were female.

### Measurement Independent Variable: IT-Enabled Autonomy

Measurements of the IT-Enabled Autonomy are based on the work design questionnaire developed by Morgeson and Humphrey (2006). The questionnaire assesses three areas of work design autonomy, namely processes-autonomy, and decision-autonomy, and scheduling-autonomy. These questions were used to conceptualize the teamwork autonomy provided to teams by IT. For instance, question of "the job allows me to make my own decisions about how to schedule my work" is changed to "using IT allows my team to make our own decisions about to schedule our work". Or question of "the job provides me with significant autonomy in making decisions" is converted to "using IT provides my team with significant autonomy in making decisions". A 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree) was used for measuring the IT-Enabled Autonomy (See Appendix-I). This approach of adapting established instruments to IT-specific organizational constructs is consistent with prior survey-based work operationalizing IT-related readiness, culture, and leadership constructs in organizational settings (Eseryel, Eseryel, & den Breejen, 2021; Eseryel & den Breejen, 2024).

The converted constructs and the language have been examined by pre-answering. Similar to prior IT-change readiness research, we prioritized semantic equivalence and respondent comprehensibility through iterative review and pretesting before translation (Eseryel, Eseryel, & den Breejen, 2021; Eseryel & den Breejen, 2024). Several people are asked about how well they can understand the adjusted question and their suggestion on the correction of language errors. The final adjusted English version is the final questionnaire (See appendix I). Then, the questionnaire has been translated to Chinese. The Chinese version is examined by Chinese people and after that, the final version is published online.

### Measurement Dependent variable: Team Innovativeness

To measure the dependent variable team innovativeness, items needed to include both idea development and idea implementation following Axtell et al. (2000). The team innovativeness was tested using 14-items, which originated from West & Anderson's (1996) NHS hospital innovation studies. These were operationalized explicitly in Axtell et al. (2000) as a content checklist of innovation types, which was then used to measure idea generation and idea implementation behaviors. In our study, all items were rated on the 7-point scale ranging from 1 (e.g., no new ideas implemented) to 7 (e.g., many new ideas implemented). Survey questions in "Part B. Team Innovativeness" provide the items used to measure this variable and its two components, namely, idea generation and idea implementation (See Appendix I).

## Results

### Factor analysis

The survey was composed of 22 items abstracted from existing constructs. Each variable was measured using 2 to 7 questions and the internal correlation of the variables were examined by factor analysis. Factor analysis aims to identify the underlying variables and factors which mostly can represent the pattern of correlations observed items. In this research, two parallel factor analyses were conducted. The first 8 items that represented the independent variable of IT-Enabled Autonomy are examined in order to test the underlying dimensions of the construct. The remaining 14 items consisted of two underlying dimensions of the dependent variable team innovativeness.

The factor analysis of items related to IT-Enabled Autonomy are same as those conceptualized in the theoretical section. The three variables of the IT-Enabled Autonomy are decision autonomy, schedule autonomy, and process autonomy. The detailed results of factor analysis for each variable are illustrated in Table 1.

**Table 1: Rotated Factor Matrix Using VARIMAX for IT-Enabled Autonomy**

| Items | Process Autonomy | Decision Autonomy | Schedule Autonomy |
|---|---|---|---|
| **PA1** | 0.718 | | |
| **PA2** | 0.732 | | |
| **DA1** | | 0.746 | |
| **DA2** | | 0.741 | |
| **DA3** | | 0.756 | |
| **SA1** | | | 0.798 |
| **SA2** | | | 0.761 |
| **SA3** | | | 0.734 |

The dependent variable of this research has two sub-variables; (new) idea generation and (new) idea implementation. Results of factor analysis demonstrate that all the relevant items measuring team innovativeness successfully loaded onto their two underling variables (Table 2).

**Table 2: Rotated Factor Matrix Using VARIMAX for Team Innovativeness**

| Items | Idea Generation | Idea Implementation |
|---|---|---|
| **NIG1** | 0.937 | |
| **NIG2** | 0.913 | |
| **NIG3** | 0.924 | |
| **NIG4** | 0.977 | |
| **NIG5** | 0.947 | |
| **NIG6** | 0.961 | |
| **NIG7** | 0.796 | |
| **NII1** | | 0.961 |
| **NII2** | | 0.978 |
| **NII3** | | 0.939 |
| **NII4** | | 0.975 |
| **NII5** | | 0.978 |
| **NII6** | | 0.947 |
| **NII7** | | 0.550 |

## Reliability Testing

Reliability analysis is conducted to test internal consistency and to assess the reliability of summative scale where items are added to the total score. Value of Cronbach's Alpha is the demonstration of reliability. According to Malhotra (2007), a Cronbach's alpha equal or higher than 0.9 indicate external internal

consistency; a Cronbach's alpha of higher than 0.8 but less than 0.9 indicates good internal consistency, and a Cronbach's alpha of higher than 0.7 but less than 0.8, indicates acceptable internal consistency. Table 3 presents the Cronbach's Alpha ranging from 0.91 to 0.94. This indicates an excellent and reliable internal consistency of different factors. Table 3 also presents the means, standard deviations and correlation coefficients for all variables ($P < 0.05$).

**Table 3: Cronbach's Alpha, Means, SDs and Correlation Coefficients**

| Variable | Items | α | Mean | SD | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|---|---|
| **IV1: Idea generation** | 7 | 0.92 | 5.40 | 1.15 | 1 | | | | |
| **DV1a: Decision autonomy** | 3 | 0.93 | 3.56 | 2.47 | 0.43[b] | 1 | | | |
| **DV1b: Schedule autonomy** | 3 | 0.91 | 3.40 | 2.25 | 0.68[b] | 0 | 1 | | |
| **DV1c: Process autonomy** | 2 | 0.94 | 4.33 | 2.32 | 0.44[b] | 0 | 0 | 1 | |
| **IV2: Idea implementation** | 7 | 0.93 | 4.89 | 1.05 | 0.90[b] | 0.48[b] | 0.68[b] | 0.39[b] | 1 |

*Note: a: p-value<0.05 two-tailed b: p-value<0.01 two-tailed*

## Hypothesis Testing

Hypothesis 1 proposed that IT-Enabled Autonomy positively influences team innovativeness.

Since Team Innovativeness was operationalized as new idea generation and new idea implementation, we tested two sub-hypotheses.

Regression analysis supported hypothesis 1a. Variables of the IT-Enabled Autonomy consisting of process-autonomy, decision autonomy, and schedule-autonomy explained 83.8% of the variance in new idea generation, with a good model fit with $F(2) = 258.30$, $p<0.05$ (See Table 4). All beta coefficients were positive indicating a positive relationship between the variables and the DV. Among all three components of the IT-Enabled Autonomy, schedule autonomy ($\beta=0.568$) has strongest positive effect on new idea generation, followed by the process- and decision-autonomy, both of which had nearly the same effect ($\beta=0.438$, and $\beta=0.437$ respectively). Therefore, we concluded that IT-Enabled autonomy influences idea generation positively.

**Table 4: Regression Results for Hypothesis 1 Regarding IT-Enabled Autonomy and Idea Generation**

| Variables | Beta |
|---|---|
| **Decision autonomy** | 0.437[b] |
| **Schedule autonomy** | 0.677[b] |
| **Process autonomy** | 0.438[b] |
| **$R^2$** | 0.842[b] |
| **adjusted $R^2$** | 0.838 |
| **F-value** | 258.3[b] |

*Notes: a: p-value<0.01 b: p-value<0.05 c: p-value<0.10*

Regression analysis also supported hypothesis 1b. Variables of the IT-Enabled Autonomy consisting of process-autonomy, decision autonomy, and schedule-autonomy explained 84.7% of the variance in new idea implementation, with a good model fit with F (2) =275.76, p<0.05. (See Table 5). All beta coefficients were positive indicating a positive relationship between the variables and the DV. Among all three components of the IT-Enabled Autonomy, schedule autonomy (β=0.684) has strongest positive effect on new idea implementation. This is followed by the decision autonomy (β=0.479, and process autonomy (β=0391). Therefore, we concluded that IT-Enabled autonomy influences idea implementation positively.

Given our empirical results, our hypothesis is supported: IT-Enabled Autonomy has a positive influence on team innovativeness.

**Table 5: Regression Results for IT-Enabled Autonomy and Idea Implementation**

| Variables | Beta |
|---|---|
| **Decision autonomy** | 0.479[b] |
| **Schedule autonomy** | 0.684[b] |
| **Process autonomy** | 0.391[b] |
| **$R^2$** | 0.850[b] |
| **adjusted $R^2$** | 0.847[b] |
| **F-value** | 275.76[b] |

*Notes: a: p-value<0.01 b: p-value<0.05 c: p-value<0.10*

## Discussion

Although team innovativeness is a concept that has been widely discussed and IT has been identified as a contributor to that, specific ways in which IT contributes to team innovation had not been investigated. This study shows that IT features and affordances that provide team members autonomy with respect to scheduling, decision-making, and processes increase their team's idea generation as well as idea implementations. Therefore, we conclude that IT-Enabled Autonomy has a strong positive influence on team innovativeness. This extends research streams on IT-enabled innovation by specifying a work-design mechanism—IT-enabled autonomy—through which technology can support both the creation and implementation of innovations (Eseryel, 2014; Eseryel, 2019; Eseryel, 2024f; Eseryel et al., 2014b).

The managerial and executive implication of our study is the importance of not only increased investment in IT, but also of evaluating the affordances that IT provides team members. Managers and executives ensure the evaluation of any potential IT investment with respect to the level of autonomy that new IT affords team members with respect to scheduling, decision-making, and work processes. In addition, leaders influence autonomy outcomes by modeling and reinforcing discretionary IT use and by configuring systems to support self-leadership and distributed decision-making. Transformational IT leadership may therefore be a practical pathway for increasing IT-enabled autonomy and strengthening innovation-related outcomes (Eseryel, 2024b; Eseryel & Biernath, 2024; Eseryel et al., 2024d).

The data collected for this survey are from mainland China. Therefore, future research could ensure widespread applicability of this research using a larger sample that includes team members from different geographic regions. Future work could also examine whether national and organizational IT culture differences influence how autonomy is perceived and enacted through IT across settings (Eseryel, Eseryel, & den Breejen, 2021; Boonstra et al., 2018).

# APPENDIX-I: Survey Instrument Used for Collecting Data on the Key Constructs

| **Part A. Team Use of IT for team tasks** | Strongly Disagree | Disagree | Somewhat Disagree | Neutral | Somewhat Agree | Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| 1. Using IT allows my team to make our decisions about how to schedule our work. | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ |
| 2. Using IT allows my team to decide on the order in which things are done on the job. | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ |
| 3. Using IT helps our team to plan how to do our work. | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ |
| 4. The IT gives me more chances to use my personal initiative or judgment on carrying out the work in our team | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ |
| 5. Using IT helps my team to make a lot of decisions on our own. | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ |
| 6. Using IT provides my team with significant autonomy in making decisions | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ |
| 7. Using IT helps my team to make decisions about what methods we use to complete our work. | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ |
| 8. Using of IT gives my team considerable opportunity for independence and freedom in how we do our work. | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ |
| 9. Using IT helps our team to decide on our own how to go about doing our work. | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ |

**Part B. Team innovation**

This part deals with the **generation of new ideas in your team**. Please indicate to what extent your team develops ideas concerning the following aspects of work.

| **Idea generation concerning ...** | No new ideas generated 1 | 2 | 3 | 4 | 5 | 6 | Many new ideas generated 7 |
|---|---|---|---|---|---|---|---|
| 1. new targets or objectives | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ |
| 2. new methods to achieve work targets | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ |
| 3. new working methods or techniques | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ |
| 4. new information or recording systems | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ |
| 5. new products or product improvements | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ |
| 6. new processes | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ |
| 7. other aspects of work | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ |

The following part deals with the **implementation of the ideas generated by your team**. Please indicate to what extent the ideas concerning the following aspects of work also are implemented.

| **Idea implementation concerning ...** | No new ideas implemented<br>1 | 2 | 3 | 4 | 5 | 6 | Many new ideas implemented<br>7 |
|---|---|---|---|---|---|---|---|
| 1. new targets or objectives | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ |
| 2. new methods to achieve work targets | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ |
| 3. new working methods or techniques | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ |
| 4. new information or recording systems | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ |
| 5. new products or product improvements | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ |
| 6. new processes | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ |
| 7. other aspects of work | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ | ❒ |

## References


Amabile, T. M. (1996). Creativity in context: Updates to the social psychology of creativity. Westview Press.

Amabile, T. M. (1998). How to kill creativity. Harvard Business Review, 76(5), 76–87.

Auh, S., & Menguc, B. (2005). Balancing exploration and exploitation: The moderating role of competitive intensity. Journal of Business Research, 58(12), 1652–1661. https://doi.org/10.1016/j.jbusres.2004.11.007

Axtell, C. M., Holman, D. J., Unsworth, K. L., Wall, T. D., & Waterson, P. E. (2000). Shopfloor innovation: Facilitating the suggestion and implementation of ideas. Journal of Occupational and Organizational Psychology, 73(3), 265–285. https://doi.org/10.1348/096317900167029

Barker, J. R. (1993). Tightening the iron cage: Concertive control in self-managing teams. Administrative Science Quarterly, 38(3), 408–437. https://doi.org/10.2307/2393374

Bhaskaran, S. (2006). Incremental innovation and business performance: Small and medium-size food enterprises in a concentrated industry environment. Journal of Small Business Management, 44(1), 64–80. https://doi.org/10.1111/j.1540-627X.2006.00154.x

Bonner, J. M., Ruekert, R. W., & Walker, O. C., Jr. (2002). Upper management control of new product development projects and project performance. Journal of Product Innovation Management, 19(3), 233–245. https://doi.org/10.1111/1540-5885.1930233

Boonstra, A., Eseryel, U. Y., & van Offenbeek, M. (2018). Stakeholders' enactment of competing logics in IT governance: Polarization, compromise, or synthesis? European Journal of Information Systems, 27(4), 415–433. https://doi.org/10.1057/s41303-017-0055-0

Carbonell, P., & Rodríguez-Escudero, A. I. (2011). Antecedents and consequences of using information in new product development teams. Journal of Product Innovation Management, 28(2), 213–227. https://doi.org/10.1111/j.1540-5885.2011.00787.x

Crowston, K., Howison, J., Chengetai, M., & Eseryel, U. Y. (2007). The role of face-to-face meetings in technology-supported self-organizing distributed teams. IEEE Transactions on Professional Communication, 50(3), 185–203. https://doi.org/10.1109/TPC.2007.902654

Crowston, K., Li, Q., Wei, K., Eseryel, U. Y., & Howison, J. (2007). Self-organization of teams in free/libre open source software development. Information and Software Technology, 49(6), 564–575. https://doi.org/10.1016/j.infsof.2007.02.004

Das, S. R., Zahra, S. A., & Warkentin, M. E. (1991). Integrating the content and process of strategic MIS planning with competitive strategy. Decision Sciences, 22(5), 953–984. https://doi.org/10.1111/j.1540-5915.1991.tb00382.x

Dibrell, C., Davis, P. S., & Craig, J. (2008). Fueling innovation through information technology in SMEs. Journal of Small Business Management, 46(2), 203–218. https://doi.org/10.1111/j.1540-627X.2008.00240.x

Eisenbeiss, S. A., van Knippenberg, D., & Boerner, S. (2008). Transformational leadership and team innovation: Integrating team climate principles. Journal of Applied Psychology, 93(6), 1438–1446. https://doi.org/10.1037/a0012716

Emmanuelides, P. A. (1993). Toward an integrative framework of performance in product development projects. Journal of Engineering and Technology Management, 10, 363–392. https://doi.org/10.1016/0923-4748(93)90005-8

Ekvall, G. (1991). The organizational culture of idea management: A creative climate for the management of ideas. In J. Henry & D. Walker (Eds.), Managing innovation (pp. 73–79). Sage.

Eseryel, U. Y. (2014). IT-enabled knowledge creation for open innovation. Journal of the Association for Information Systems, 15(11), 805–834. https://aisel.aisnet.org/jais/vol15/iss11/3/

Eseryel, U. Y. (2019). The case of "Med-Global": IT-enabled innovation and implementation by non-IT business unit leaders. Strategy & Leadership, 47(2), 43–48. https://doi.org/10.1108/SL-01-2019-0013

Eseryel, U. Y. (2024). IT-enabled open innovation types and behaviors. Journal of Leadership and Management, 10(2), 77–105.

Eseryel, U. Y., & den Breejen, M. (2024). Individuals' IT-change readiness in healthcare organizations. Journal of Applied Business and Economics, 26(3), 274–298. https://doi.org/10.33423/jabe.v26i3

Eseryel, U. Y., & Eseryel, D. (2013). Action-embedded transformational leadership in self-managing global information technology teams. Journal of Strategic Information Systems, 22(2), 103–120. https://doi.org/10.1016/j.jsis.2013.02.001

Eseryel, U. Y., & Wolf, N. (2005). Enterprise architecture as a context for ERP implementation. Journal of Enterprise Architecture, 1(2), 7–24.

Eseryel, U. Y., Crowston, K., & Heckman, R. (2021). Functional and visionary leadership in self-managing virtual teams. Group & Organization Management, 46(2), 424–460. https://doi.org/10.1177/1059601120955034

Eseryel, U. Y., Eseryel, D., & den Breejen, M. (2021). IT culture elements that influence individual readiness to change in healthcare organizations. International Journal of Information Systems and Change Management, 12(4), 293–318. https://doi.org/10.1504/IJISCM.2021.10047283

Eseryel, U. Y., Wei, K., & Crowston, K. (2020). Decision-making processes in community-based free/libre open source software-development teams with internal governance: An extension to decision-making theory. Communications of the Association for Information Systems, 46(20), 484–510. https://doi.org/10.17705/1CAIS.04620

Garcia, R., & Calantone, R. (2002). A critical look at technological innovation typology and innovativeness terminology: A literature review. Journal of Product Innovation Management, 19(2), 110–132. https://doi.org/10.1111/1540-5885.1920110

Hoegl, M., & Parboteeah, K. P. (2006). Team reflexivity in innovative projects. R&D Management, 36(2), 113–125. https://doi.org/10.1111/j.1467-9310.2006.00420.x

Kim, Y., Min, B., & Cha, J. (1999). The roles of R&D team leaders in Korea: A contingent approach. R&D Management, 29(2), 153–166. https://doi.org/10.1111/1467-9310.00126

King, S. F., & Burgess, T. F. (2006). Beyond critical success factors: A dynamic model of enterprise system innovation. International Journal of Information Management, 26, 59–69. https://doi.org/10.1016/j.ijinfomgt.2005.10.006

Lee, S., & Runge, J. (2001). Adoption of information technology in small business: Testing drivers of adoption for entrepreneurs. Journal of Computer Information Systems, 42(1), 44–57. https://doi.org/10.1080/08874417.2001.11647083

Leonardi, P. M. (2011). When flexible routines meet flexible technologies: Affordance, constraint, and the imbrication of human and material agencies. MIS Quarterly, 35(1), 147–167. https://doi.org/10.2307/23043493

Leonardi, P. M. (2013). Theoretical foundations for the study of sociomateriality. Information and Organization, 23(2), 59–76. https://doi.org/10.1016/j.infoandorg.2013.02.002

Levitt, T. (1962). Innovation in marketing: New perspectives for profit and growth. McGraw-Hill.

Malhotra, N. K. (2007). Marketing research: An applied orientation (5th ed.). Pearson.

McDonough, E. F., & Barczak, G. (1991). Speeding up new product development: The effects of leadership style and source of technology. Journal of Product Innovation Management, 8(3), 203–211. https://doi.org/10.1016/0737-6782(91)90009-S

Moe, N. B., Stray, V., & Dingsøyr, T. (2018). Understanding coordination in global software engineering: A mixed-method study on the use of Scrum. Journal of Systems and Software, 133, 38–56. https://doi.org/10.1016/j.jss.2017.07.017

Morgeson, F. P., & Humphrey, S. E. (2006). The Work Design Questionnaire (WDQ): Developing and validating a comprehensive measure for assessing job design and the nature of work. Journal of Applied Psychology, 91(6), 1321–1339. https://doi.org/10.1037/0021-9010.91.6.1321

Negoita, B., Lapointe, L., & Rivard, S. (2018). Designing IT to enable distributed cognition: A sociotechnical perspective. MIS Quarterly, 42(4), 1119–1141. https://doi.org/10.25300/MISQ/2018/13292

Osborn, A. F. (1963). Applied imagination: Principles and procedures of creative problem solving (3rd ed.). Scribner.

Parker, S. K., Van den Broeck, A., & Holman, D. (2017). Work design influences: A synthesis of multilevel factors that affect the design of jobs. Academy of Management Annals, 11(1), 267–308. https://doi.org/10.5465/annals.2014.0054

Parnes, S. J. (1992). Sourcebook for creative problem solving: A fifty-year digest of proven innovation processes. Creative Education Foundation Press.

Powell, T. C., & Dent-Micallef, A. (1997). Information technology as competitive advantage: The role of human, business, and technology resources. Strategic Management Journal, 18(5), 375–405. https://doi.org/10.1002/(SICI)1097-0266(199705)18:5<375::AID-SMJ876>3.0.CO;2-7

Quinn, J. B. (2000). Outsourcing innovation: The new engine of growth. Sloan Management Review, 41(4), 13–28.

Reilly, R. R., Lynn, G. S., & Aronson, Z. H. (2003). The role of executive sponsorship in new product development projects. Journal of Product Innovation Management, 20(6), 443–455. https://doi.org/10.1111/1540-5885.00045

Sarker, S., Chatterjee, S., Xiao, X., & Elbanna, A. (2019). The sociotechnical axis of cohesion for the IS discipline. MIS Quarterly, 43(3), 695–717. https://doi.org/10.25300/MISQ/2019/13747

Stewart, G. L., Courtright, S. H., & Manz, C. C. (2011). Self-leadership: A multilevel review. Journal of Management, 37(1), 185–222. https://doi.org/10.1177/0149206310383911

Stewart, G. L., Manz, C. C., & Sims, H. P., Jr. (1999). Teamwork and group dynamics. John Wiley.

Vaast, E., Safadi, H., Lapointe, L., & Negoita, B. (2017). Social media affordances for connective action: An examination of microblogging use during the Gulf of Mexico oil spill. MIS Quarterly, 41(4), 1179–1205. https://doi.org/10.25300/MISQ/2017/41.4.11

West, M. A. (1990). The social psychology of innovation in groups. In M. A. West & J. L. Farr (Eds.), Innovation and creativity at work (pp. 309–333). Wiley.

West, M. A., & Anderson, N. R. (1996). Innovation in top management teams. Journal of Applied Psychology, 81(6), 680–693. https://doi.org/10.1037/0021-9010.81.6.680

Yoo, Y., Henfridsson, O., & Lyytinen, K. (2010). The new organizing logic of digital innovation. Information Systems Research, 21(4), 724–735. https://doi.org/10.1287/isre.1100.0322

Zaltman, G., Duncan, R., & Holbek, J. (1973). Innovations and organizations. Wiley.

Zirger, B. J., & Hartley, J. L. (1994). A conceptual model of product development cycle time. Journal of Engineering and Technology Management, 11, 229–251. https://doi.org/10.1016/0923-4748(94)90004-3