

# Motivation at work : an analysis from the self-determination theory perspective

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**Abstract.** In the rapidly evolving organizational landscape of the 21st century, traditional motivational strategies are increasingly inadequate. This paper explores the application of Self-Determination Theory (SDT) as an alternative framework for understanding and enhancing employee motivation. Originating as a critique of traditional reward-punishment models, SDT focuses on fulfilling employees' intrinsic psychological needs—autonomy, competence, and relatedness—to improve job satisfaction and organizational efficiency. The paper begins by tracing the historical development of work motivation theories, from scientific management to human relations theories, and positions SDT in this context. Using a combination of literature review and empirical analysis, including ANOVA and factor analysis, the study examines how SDT can be practically applied in the workplace. It discusses the benefits of autonomy, competence, and relatedness in increasing job satisfaction and performance, while also acknowledging the limitations and challenges of SDT, such as cultural variations and resource constraints. The paper concludes that SDT offers a robust, adaptable framework for modern organizations, with significant implications for future research and practice.

## 1 Introduction

In the organizational environment of the 21st century, employee motivation has become a critical factor affecting company benefits, productivity, and culture. Today's organizations face many challenges and changes, such as globalization, technological shifts, cultural diversification, complex business environments, and advancements in management theory. Against this backdrop, traditional strategies that simply increase employee motivation by enhancing compensation are no longer applicable. New theories and methods of motivation are gaining prominence.

From the scientific management theory at the beginning of the 20th century, which advocated for the application of scientific methods to analyse and standardize all workflows, determining the optimal method for specific tasks through "time and motion studies," to the human relations movement of the mid-20th century that linked worker productivity to their social interactions and team dynamics. Both Maslow's hierarchy of needs and Herzberg's two-factor theory have studied employee job satisfaction and organizational motivation to help managers better understand and meet employees' needs. The study of work motivation has undergone several major

transformations. While these early studies have provided a valuable theoretical foundation for modern researchers, they seem inadequate in addressing today's complex organizational environment.

Self-Determination Theory (SDT) was initially introduced by Deci and Ryan in the 1970s to study individuals' intrinsic motivation and behavioural patterns. This theory was a critique of the traditional reward-punishment motivation models. Prior to SDT, it was observed that when people engage in activities for external rewards, their intrinsic interest and motivation might diminish. Nowadays, SDT has been applied in various fields, including education, sports, medicine, and work, with research in each domain suggesting that when an individual's intrinsic needs are met, their performance significantly improves. SDT can enhance employee job satisfaction, loyalty, and overall organizational efficiency.

Given SDT's significance in theory and practice, this research aims to further investigate and integrate the application of SDT in the workplace. It hopes to provide a more scientific and systematic motivational strategy and method for the working environment. This inquiry stems from the increasing importance of employee motivation in contemporary enterprises. With economic globalization and technological

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advancements, coupled with the personal growth of employees, there's [M.Z1] is a need for greater flexibility and autonomy to adapt to new modes of action and a constantly changing work environment. Thus, understanding employees' intrinsic motivation is crucial.

This study will first explore the historical background of SDT, illustrating how SDT emerged from critiques of traditional motivation theories. The theoretical development of SDT and its achievements in various domains will be highlighted, along with comparisons between SDT and other motivational theories. The discussion will then shift to how SDT can be applied in the workplace, focusing on enhancing employee intrinsic motivation by meeting their psychological needs, thereby improving employee well-being and organizational efficiency. The limitations and challenges of SDT, such as cultural differences in interpretations, conflicts between long-term and short-term interests, and resources needed for SDT strategy implementation, will be explored. This research will also delve into the practical applications based on SDT, like fulfilling employees' basic psychological needs, providing training and development, feedback mechanisms, and SDT-related reward and incentive systems.

## **2 Literature review**

### **2.1 The historical background of work motivation**

#### *2.1.1 Scientific Management Theory*

In the early 20th century, Frederick Winslow Taylor introduced the concept of scientific management. He advocated for the use of scientific methods to enhance work efficiency [1]. His theory emphasized the standardization and classification of work processes to identify optimal workflows, aiming to maximize organizational efficiency. This approach prioritized task optimization and staff training, enabling employees to achieve their best in specific tasks. Although it did lead to increased work efficiency, it neglected the psychological and social needs of the employees and was soon replaced by newer theories.

#### *2.1.2 Human relations movement*

With the progression of the Industrial Revolution and industrialization, numerous industries and companies were established. During this period, the majority of management theories and practices focused on enhancing productivity. However, managers and researchers gradually realized that factors beyond

mechanization and workflow affected productivity. Researchers began to note the impact of employees' social and psychological needs on productivity. Experiments conducted at Harvard Business School, specifically the Hawthorne experiments, showed a connection between workers' productivity and their social relationships, as well as job satisfaction [2]. These studies catalyzed the Human Relations Movement, emphasizing the importance of social and emotional needs of employees within organizations.

#### *2.1.3 Hierarchy of Needs Theory*

In the 1950s, Abraham Maslow's Hierarchy of Needs became a cornerstone in both psychology and management fields. This theory aimed to unveil the driving forces and needs behind human behavior, proposing a tiered progression of needs. Maslow identified five fundamental human needs: physiological, safety, love/belonging, esteem, and self-actualization [3]. The theory emphasized that only when lower-level needs are met can one pursue higher-level needs. Maslow's model provided managers a framework to identify and address employee needs, offering effective motivational strategies.

#### *2.1.4 Two-factor Theory*

Herzberg's Two-Factor Theory explored factors contributing to employee satisfaction. The theory posits that factors leading to satisfaction and dissatisfaction are distinct and should be discussed separately. Herzberg categorized these factors into motivators (related to job content, e.g., achievements, recognition, growth opportunities) and hygiene factors (e.g., salary, working conditions, environment) [4]. While hygiene factors might not significantly increase satisfaction, their absence could lead to dissatisfaction. Herzberg emphasized that simply providing a good working environment was not enough; employees also need challenges and opportunities to genuinely find work satisfying and motivating.

### **2.2 Origins of the Self-determination Theory**

Self-Determination Theory (SDT), introduced by Edward L. Deci and Richard M. Ryan in the early 1970s, seeks to understand what drives individuals towards specific behaviors and how they evaluate and select them [5]. Researchers discovered that intrinsic motivations, where actions are pursued out of genuine interest or for the sake of enjoyment rather than external rewards, also influence behavior.

Traditional motivation theories considered external rewards and punishments as the primary behavioral drivers. Deci's research, however, found that external rewards could diminish intrinsic interest. This suggests that external rewards can interfere with intrinsic motivation, affecting creativity, happiness, and efficiency. Researchers further proposed three basic

psychological needs to understand true motivation: competence, relatedness, and autonomy [6]. Meeting these needs results in increased motivation, better performance, and overall well-being.

### **2.3 Applications of Self-determination Theory in other fields**

Since its inception, SDT has been applied extensively across multiple fields, from education and sports to healthcare, leaving a profound impact. Here's a literature review of its application across these sectors:

**Education:** SDT in education mainly focuses on students' learning motivation, academic achievements, and engagement. Studies suggest that when students' intrinsic motivations are satisfied, they are more likely to exhibit higher learning motivation and academic achievements [7]. Autonomy plays a crucial role in academic success, indicating educators should offer moderately challenging tasks, fostering students' academic competence, and enhancing their enthusiasm and engagement.

**Sports:** In the sports realm, SDT discusses athletes' training motivations and performances. Research highlights that when athletes experience greater autonomy, they're more likely to continue in the sport and perform better [8]. When coaches offer choices and involve athletes in decision-making, it heightens their sense of engagement and motivation.

**Healthcare:** In healthcare, SDT is applied to patient rehabilitation, lifestyle changes, and treatment adherence. When patients feel that their decisions stem from autonomy rather than external pressures or obligations, they're more likely to engage consistently in rehabilitation treatments. Meeting psychological needs can lead to proactive lifestyle changes in chronic illnesses like hypertension or diabetes. Collaborative discussions between doctors and patients can enhance their sense of competence, ensuring patients understand the treatment's significance, and boost adherence motivation [9].

## **3 Theoretical frameworks**

### **3.1 Definitions of intrinsic and extrinsic motivation**

Intrinsic and extrinsic motivations are two essential concepts within the Self-Determination Theory (SDT). Both types of motivations collectively determine an individual's drive, propelling them to make choices and complete tasks. Intrinsic motivation refers to the driving force that arises from an individual's inherent interests and passions, leading to a sense of satisfaction. When an individual is driven not by external stimuli or punishments but by this internal force, they are said to be intrinsically motivated. In contrast, extrinsic motivation is derived from seeking external rewards, such as bonuses or evaluations. While extrinsic motivation can often only sustainably drive an individual in the short

term, intrinsic motivation can ensure long-lasting and spontaneous motivation [6].

#### **3.1.1 Three core psychological needs**

The Self-Determination Theory posits that everyone has three fundamental psychological needs: autonomy, competence, and relatedness [6]. Autonomy refers to the sense of having choices and the ability to make decisions in one's life, rather than feeling controlled or oppressed. This need underscores the importance of personal freedom and control over one's actions. Fulfilling the need for autonomy can enhance intrinsic motivation, increasing individual engagement and overall well-being. Competence relates to an individual's perception of their abilities, especially if they believe they are capable of completing tasks and challenges. When individuals feel that they possess the skills and capabilities required for a task, their sense of competence is satisfied. Relatedness, on the other hand, concerns the need to establish and maintain positive relationships with others. This sense of belonging can be found in familial ties, romantic relationships, or other interpersonal connections, fostering participation and contentment.

### **3.2 Comparison with other motivation theories**

The Self-Determination Theory markedly differs from other conventional motivation theories, with disparities primarily focusing on the understanding of how external factors influence motivation. Maslow's hierarchy of needs suggests a progression from basic physiological needs to higher-tier self-actualization needs. Herzberg's two-factor theory further distinguishes between motivators linked to job satisfaction and hygiene factors. While these theories somewhat overlap with SDT, especially in emphasizing the importance of fulfilling basic needs for motivation, the SDT also stresses the interplay of these needs with external stimuli. Moreover, SDT specifically emphasizes how the environment affects the satisfaction of psychological needs, making it especially apt for analyzing motivation within organizational contexts. Within organizations, management strategies and workspace design directly impact individuals' psychological needs, thereby influencing their motivation and performance. In contrast, traditional theories tend to segregate individuals and external factors, discussing them separately.

While there are similarities between Self-Determination Theory and conventional motivation theories, SDT provides organizations with a more comprehensive and practical framework due to its deeper understanding of motivation and the interplay between environmental factors and individual motivation.

## **4 Discussion**

### **4.1 Application of SDT in the work environment**

The application of Self-Determination Theory (SDT) in the workplace has profound implications, especially in motivating employees and enhancing organizational efficiency [6,10].

When discussing autonomy, several studies have shown that employees exhibit significant improvements in job satisfaction and production efficiency when granted higher levels of autonomy. For instance, research by Deci, Connell, & Ryan [11] found that when employees had greater autonomy, they reported higher job satisfaction in their work reports. First, managers were asked to complete a Problems at Work Questionnaire designed to assess their tendency to support subordinates' self-determination versus controlling their behavior. The data were collected at three different points in time. Second, subordinates or technicians completed another questionnaire called the Work Climate Survey. This questionnaire assessed their reactions to the immediate work environment as well as to the company and senior management. A 2 x 2 repeated measures ANOVA was used to assess subordinates' perceptions, affect and satisfaction at two different points in time. This method of analysis helped to understand whether the intervention had a positive or negative impact on the subordinates. Finally, through higher-order factor analysis, the article further explored variables explicitly related to immediate supervisors (e.g., satisfaction with quality of supervision and quality of feedback, opportunities for engagement, and trust in supervisor). This study carries practical implications. It suggests that organizations can grant employees more freedom in choosing their tasks and work methods, such as flexible work hours and remote working arrangements. Encouraging employees to participate in decision-making processes can also empower them to have a more substantial role in projects. All these measures to bolster autonomy can amplify employees' intrinsic motivation, consequently enhancing organizational efficiency and employee satisfaction. The article recognizes several key limitations in its methodology and conclusions. First, because this was a large-scale field experiment, the study encountered multiple methodological problems, which led to limitations in adequately testing the effects of the intervention on subordinates. Second, the article notes that the relationship between managerial support for self-determination and subordinates' work experience shows considerable inconsistency when overall conditions in the organization are poor. In addition to this, the authors mention the limitations of the time frame. Due to organizational considerations, the evaluation could not be postponed, which means that it may take longer to fully understand the impact of the intervention.

Competence gives employees the confidence that they have the capability, resources, and training to complete tasks. When these conditions are met, it's more likely that productivity will surge. Research by Ryan & Deci [6] highlighted that when researchers provided additional training and resource support to a test group, their job performance outshined that of the control group. There are two main methods used in the article to

measure intrinsic motivation. The first is a behavioral measure called a "free choice" measure. In this approach, participants perform a task under different conditions (e.g., whether they receive a reward). They are then told that they no longer need to perform the target task and are left in the laboratory with the opportunity to choose whether to return to the activity. If there was no extrinsic reason (e.g., no reward or recognition), then the more time they spent on the target task, the more intrinsically motivated they were for that task. The second approach uses self-reported levels of interest and enjoyment. While experimental studies usually rely on task-specific measures, most field studies use more general "domain" focused measures, such as one's intrinsic motivation for school.

Relatedness, one of the core components of Self-Determination Theory (SDT), plays a crucial role in the workplace, affecting not only employees' motivation but also their overall well-being. Research has shown that having a sense of relatedness or connection with coworkers and supervisors significantly affects job satisfaction and performance. For example, a study by Ryan and Deci [6] highlighted the importance of a supportive environment in facilitating the internalization and integration of behavioral norms. When employees feel connected to their co-workers and supervisors, they are more likely to internalize the values and goals of the organization, leading to increased job satisfaction and performance.

In the workplace environment, relevance can be fostered through team-building activities, open lines of communication, and more. Managers can play a vital role in this regard, as suggested by Deci, Connell, and Ryan's [11] study. Their study found that employees performed better at internalizing and integrating work-related values when supported by supervisors who supported autonomy and relevance. This was measured by a questionnaire called the Work Climate Survey, which assessed employees' reactions to their immediate work environment and to the company. The study used a 2 x 2 repeated measures ANOVA and higher order factor analysis to identify relevant variables such as trust and quality of feedback.

#### **4.2 Limitations and challenges of SDT in the workplace**

While the Self-Determination Theory offers a framework for a deeper understanding of individual motivation, it also faces certain limitations and challenges. One primary issue is the diverse manifestation and requirements of the three core psychological needs across different cultures. Some collectivist cultures may emphasize team collaboration and collective success over individual autonomy [12]. Currently, there's a scarcity of cross-cultural studies on SDT.

Another limitation is the potential reverse causality in the workplace application of SDT. For instance, when employees have low job satisfaction, they might be less inclined to engage in organizational learning and independent work planning. Conversely, when job

satisfaction and well-being are high, employees tend to have a higher fulfillment of motivational needs.

The challenge of short-term versus long-term conflict is also worth noting. Meeting employees' psychological needs might indeed necessitate short-term resource investments. For instance, to augment employee autonomy, managers may need to revise workflows, involve more staff in decision-making—which may require allocating more time for meetings. Introducing remote working could also mean incorporating new work applications. While these changes can enhance long-term organizational benefits by fulfilling employees' intrinsic motivations and boosting their job satisfaction and enthusiasm, leaders may need to bear certain short-term losses.

Concerning resource constraints for implementing changes, even though creating a work environment that satisfies employees' psychological needs is beneficial, organizations might lack the resources to effectuate these changes. For example, reinforcing employees' sense of competence may entail corporate training and business trips. Not only do these require financial outlay but also the coordination of human resources and time. Similarly, strengthening employees' sense of relatedness might involve team-building activities and employee benefits, which are often restricted by the organization's limited resources. Thus, when deciding on how to implement SDT, organizations must weigh resource objectives against employees' motivational needs, seeking the most cost-effective strategies to ensure sustainable execution.

## 5 Conclusion

Self-Determination Theory (SDT) has brought profound implications to the modern organizational field, offering a perspective that aligns more closely with contemporary industrial and workplace demands. The crux of SDT lies in understanding and satisfying the psychological needs of employees—autonomy, competence, and relatedness. When these needs are met, there is a notable enhancement in employees' work motivation, job satisfaction, as well as the organization's production efficiency and economic benefits.

In the ever-evolving organizational landscape and diversified work settings of today, there remains ample room for the growth and application of SDT. As work modalities and employee needs shift, refining and perfecting SDT to make it most effective across diverse cultures and industries emerges as a new direction for research. In sum, Self-Determination Theory still holds immense research potential and practical value in the future, warranting our sustained attention and in-depth exploration.

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