

The impact of self-determination theory on work motivation: A critical review

Li Guo

Universiti Sains Malaysia

Email: guoli@student.usm.my

Shankar Chelliah *

Universiti Sains Malaysia

Email: shankarchelliah1@gmail.com

** Corresponding Author*

Abstract

Purpose: This study is based on research on work motivation's Self-determination Theory (SDT). It aims to examine the conceptual framework of SDT, reveal potential limitations and contradictions, and deepen the understanding of SDT in work motivation.

Design/methodology/approach: This study adopts the steps of a systematic literature review, clearly defining the inclusion/exclusion criteria, preliminary samples, selected samples, conducting in-depth research on the literature, and finally reorganizing the extracted results.

Findings: Key findings of SDT in work motivation include that Basic psychological needs play a central role in stimulating intrinsic motivation, especially the satisfaction of autonomy, competence, and relatedness, which are closely related to active work.

Research limitations/implications: The literature used in this study is based on Western culture, and its applicability in different cultures needs to be further studied. Instruments that measure autonomy, competence, relatedness needs, and intrinsic motivation need continuous improvement. Future research can focus on the applicability of SDT in different cultures and strengthen measurement tools to enhance the application value of SDT.

Practical implications: SDT provides an academic foundation for understanding organizational employee motivation, emphasizing how to stimulate autonomous motivation by satisfying internal needs, thereby improving job satisfaction and performance levels.

Originality/value: The study summarized the core concepts of SDT through in-depth analysis, such as basic psychological needs and motivation types. This article highlights the key findings of SDT in explaining employee motivation and performance, providing strong support for the understanding and application of SDT in work motivation research.

Keywords: Self-determination Theory, Work motivation, Intrinsic motivation, Extrinsic motivation

Introduction

In today's business environment, where competition accumulates, understanding the work motivations of organizational individuals and how to stimulate their potential has become a crucial issue. Work motivation is regarded as a critical factor in predicting employee work behavior. Therefore, many studies over the years have explored the impact of employee motivation on work outcomes. One theory that has attracted widespread attention is the Self-determination Theory (SDT) (Vo et al., 2022). Previous research has found that increased organizational demands on work may cause employees to feel stressed, fatigued, and emotionally unstable, affecting work quality (Gillet et al., 2015; Reknes et al., 2014).

Sigmund Freud was the first to mention the value of motivation for individuals (Hersey & Blanchard, 1988). He held the view that it is impossible for people to consistently achieve all of their desires and goals; therefore, their behavior is often driven by intrinsic motivations or subconscious needs. This suggests that when faced with various options, individuals will decide how they behave and how much effort they put in based on the attractiveness of the expected results (Rita et al., 2018). For example, a person may dedicate more time and effort to a particular job because he foresees that the job will bring rich rewards or satisfy his intrinsic sense of achievement. At the same time, an individual's decision-making process may also be influenced by deeper needs and desires in the subconscious, which may not be easy to perceive but subtly guide their behavior.

Intrinsic rewards significantly impact employee performance, and employee motivation is mediating in this relationship (Manzoor et al., 2021). This means that when employees receive intrinsic rewards, such as job fulfillment, personal growth opportunities, or recognition, their performance improves significantly. In addition, intrinsic rewards can motivate employees and make them work more engaged and complex, improving work performance. However, not all employees will be adversely affected by job requirements, and personal motivational factors mediate in this process, mitigating employees' adverse reactions to these demands (Siu et al., 2007). This suggests that motivational factors are important when employees are stressed at work. Therefore, employees' work motivation has a complex and multifaceted impact on performance outcomes.

SDT has gradually emerged and has become a critical theory in human motivation research (Gagné et al., 2014). SDT was initially proposed by Edward L. Deci and Richard M. Ryan in the 1980s. Since its introduction, SDT has been widely researched and applied in various fields. In recent years, SDT has been studied in much of the literature as a framework for explaining employee motivation and engagement. Many previous studies have explored the relationships between basic psychological needs and job satisfaction, performance, and happiness described in the SDT. These research findings highlight the critical role of basic psychological needs in the work environment.

SDT focuses on individuals' basic psychological needs, particularly autonomy, competence, and relatedness, and how these needs influence employees' intrinsic motivation. As an essential psychological theory, SDT provides profound insights to help managers understand employee motivation, satisfaction, and job performance. From the SDT perspective, basic psychological needs, which include competence, autonomy, and relatedness, are considered prerequisites for motivation. This means that when these basic needs of employees are met, they are more likely to experience intrinsic motivation and, thus, are more inclined to participate in work and pursue goals actively.

According to Wang et al. 2024, employees who complete their job performance are likely to have their competence needs met. This suggests that when employees feel they have enough competence to complete their work, they are inclined to experience intrinsic motivation. Therefore, job performance may not directly affect work motivation but instead affect motivation by the mediating factor of satisfying basic psychological needs (Wang et al., 2024). This means that employees' job performance will indirectly affect their work motivation because satisfying their competence needs will help stimulate intrinsic self-motivation and self-inspiration. This finding emphasizes the importance of paying attention to and supporting employees' basic psychological needs in the work environment to promote them to be more actively engaged in their work and achieve better performance.

Previous research has shown that satisfying employees' basic psychological needs is critical to stimulating their intrinsic motivation. Employees who feel empowered, competent, and relevant at work are likelier to experience intrinsic motivation. This means they believe their actions are motivated by intrinsic interests, values, or goals, increasing their motivation to

work. This intrinsic motivation is often associated with higher job satisfaction, stronger motivation, and better job performance. These outcomes underline the criticality of ensuring employees' basic psychological needs in organizations to promote their positive work behaviors and performance.

However, when basic psychological needs are unmet, employees may feel driven by external or internal pressures, causing them to act contrary to their preferences and wishes. This can lead to decreased emotion and motivation at work, as employees feel they need more autonomy to decide how to act. Therefore, meeting employees' basic psychological needs in organizational management is crucial to improving work motivation, satisfaction, and performance.

Work motivation is a vital issue in organizational behavior research. From the SDT perspective, motivation is a crucial element affecting organizational workplace productivity, including intrinsic and extrinsic (Deci et al., 2017; Deci & Ryan, 2000). SDT emphasizes the diversity of motivation and believes that it cannot be simply regarded as a one-dimensional structure. In addition to considering the quantity of motivation, attention should also be focused on the quality of motivation (Henning et al., 2023). Investigations have revealed that intrinsic motivation is associated with higher work engagement, creativity, and job satisfaction. In comparison, extrinsic motivation often correlates with short-term goals and may cause a decline in employee motivation and performance. Therefore, from the perspective of SDT, understanding and satisfying employees' intrinsic motivation is one of the keys to improving work performance in organizations.

Although job performance is affected by various motivations and other factors, motivation to perform well can be considered an essential factor affecting performance (Van Knippenberg, 2000). Researchers and practitioners should delve deeper into individuals' work motivations in organizations, as these motivations play a significant part in structuring workplace well-being and enhancing performance (Deci et al., 2017).

This study will conduct in-depth research on the core concepts and motivational types of SDT. Meanwhile, discuss how to apply these research findings in organizations to improve employee job performance. Utilizing these research findings can achieve high-performance outcomes for both individuals and organizations. Organizational managers can create a healthy, dynamic, and creative work environment, enhancing employees' intrinsic motivation and happiness.

Literature Review

To deepen our understanding of work motivation, this section examines and analyzes many literatures related to work motivation. At the same time, this article also organizes and analyzes the content of literature associated with SDT, examining SDT from two aspects: basic psychological needs and motivation types. A deep understanding of these concepts, empirical research results, and literature review play a crucial role in mastering the core principles of SDT.

Work Motivation

Motivation can usually be understood as the ability to change behavior. Meanwhile, because human behavior is targeted toward specific goals, motivation can also be understood as the driving force that drives people to take various actions (Kleinginna & Kleinginna, 1981). *Work motivation* is a kind of energy from internal and external forces that drives individuals to engage in work-related behaviors and influences the form, direction, intensity, and endurance of these behaviors (Pinder, 2014). This motivation stems from individuals' internal needs, expectations, and external incentives, which affect their commitment to and performance at work. Therefore, diversity and sources of work motivation are necessary forces driving

individual behavior. Effective management and stimulating work motivation are the keys to an organization achieving its goals and sustained success.

Work motivation refers to the internal driving force that inspires employees to actively change their behavior and move toward the goals of the organization (Gelard & Rezaei, 2016). This intrinsic motivation stems from the individual's internal needs, desires, and goals and drives employees to pursue personal growth and organizational success. It is not only why employees are engaged in their work but also the source of their motivation to strive for higher performance. Motivation motivates individuals to take the actions they desire. Work motivation is embodied in employees' strong desire to carry out targeted, continuous, and consistent activities (Susanti et al., 2020).

Previous research believes that work motivation, as a fountain of positive energy, helps stimulate employees' self-perception and self-realization and points out that work motivation directly and indirectly shapes workforce performance (Vo et al., 2022). The most important result of motivation is personal performance. Intrinsic motivation, closely related to high energy and perseverance, is believed to trigger the highest level of effort (Manzoor et al., 2021). Therefore, work motivation is critical to individual self-actualization and organizational achievement.

The desire to engage in activities to enjoy the satisfaction and happiness they bring is called intrinsic motivation (Deci et al., 1989). Participating in an activity not because of interest in the activity itself, but to obtain some form of reward or to avoid external consequences, is called extrinsic motivation (Shuck et al., 2018).

Manzoor et al.'s (2021) study found that intrinsic rewards had a positive and significant impact on employee productivity in Pakistani small and medium-sized enterprises (SMEs). They noted that employee motivation plays an essential role in mediating the relationship between intrinsic rewards and employee performance. Through an experimental study, their outcomes highlight the necessity of work motivation in predicting job performance (Wang et al., 2024). This shows that employees' intrinsic motivation is crucial to job performance, and effective incentives can further enhance the interaction between intrinsic rewards and performance. Based on this finding, organizations should focus on improving employees' work motivation to improve employees' work performance. Specifically, organizations can enhance employees' intrinsic motivation through various strategies, such as providing more challenging work tasks, increasing autonomy and engagement, and creating a positive work environment.

Van Dick and Wagner. (2002) found a positive predictive relationship between variables such as job motivation, satisfaction, self-reported additional role behaviors, and identification with professional groups after surveying two schoolteacher samples. This means that teachers who are fulfilled with their profession and workplace atmosphere and willing to take on additional roles and responsibilities actively will identify more strongly with their professional groups. This finding suggests the importance of professional motivation, employment satisfaction, and job behaviors in forming individual identification with professional groups. Further, it strengthens the necessity for organizational managers and decision-makers to promote teachers' professional identification.

In addition, based on a meta-analysis of a wide range of similar studies, other scholars have provided evidence of a substantial relationship between identity and work motivation, covering indicators such as job satisfaction, turnover predispositions, and role behaviors (Riketta & Dick, 2005). Another study found that Self-motivated work drive positively correlates with higher job satisfaction and lower levels of emotional exhaustion. This means that when employees feel that their work motivation comes from an intrinsic self-drive, they are more inclined to experience superior work fulfillment and have a reduced probability of emotional burnout. These factors significantly differed from turnover intentions (Richer et al., 2002).

Porter and Lawler (1968) advocate building a work environment to achieve intrinsic and extrinsic rewards through practical performance and improve overall job satisfaction. Manzoor et al. (2021), in the SME sector of Rawalpindi and Islamabad, demonstrate that intrinsic rewards significantly enhance employee motivation and performance, underscoring the crucial role of a robust rewards system in boosting morale and productivity.

Earlier research found that intrinsic motivation may be weakened by tangible external rewards, while verbal rewards may enhance intrinsic motivation (Deci, 1971). Van Der Kolk et al. (2019) conducted an in-depth study on the nexus between various types of management control, intrinsic and extrinsic motivation, and public institution performance. Their research further expands our comprehension of the complex relationship between work motivation and performance and emphasizes the vital impact of management control and motivation type on organizational performance. This finding reminds managers that they need to carefully consider incentives to promote the enhancement of intrinsic motivation and thus improve the organization's overall performance. At the same time, this finding reveals the positive and negative interactions between intrinsic and extrinsic motivation rather than simply adding them together. This gives us a more complex and challenging perspective on the effect of performance-based rewards on job contentment.

According to research by Rita et al. (2018), work motivation significantly impacts work performance. Kuvaas et al. (2017) explored the impact of internal and extrinsic motivation on job performance and found that these two motivations had different impacts on employees' work performance. Motivation in the workplace is often viewed as extrinsic rewards, including wages, benefits, monetary incentives, awards, or professional growth prospects (Rebitzer & Taylor, 2011). By providing these rewards, organizations can improve employees' work enthusiasm and performance to a certain extent. Intrinsic rewards play a crucial role in motivational success. Because intrinsic rewards provide long-term, intangible benefits, with low implementation costs, and can be successfully repeated time and time again (Manzoor et al., 2021). The motivation generated by intrinsic rewards is more lasting and is more likely to inspire individuals to pursue goals, explore new areas, and be more willing to face challenges. This shows that motivating employees through intrinsic rewards is cost-effective and continuously improves performance.

The research results of Wallin et al. (2022) show that meaning, work satisfaction, social resources, office environment, and organizational characteristics are the factors that have the most significant impact on employee's work motivation. These factors are vital in motivating employees to work and help improve their work engagement and performance. Employees' responses to job-related factors vary according to the motivations driving their work (S. Trépanier et al., 2020). This is because each employee has different sources of motivation and personality traits, which influence how they respond to the work environment, tasks, and rewards. Some employees may be more driven by intrinsic motivations, focusing more on the task's challenging nature, the work's meaningfulness, and personal growth. Other employees may be more influenced by extrinsic rewards, focusing more on salary, bonuses, or other material incentives. In addition, employees' experiences, values, and career goals also affect their responses to work-related factors. Therefore, understanding and respecting employees' different sources of motivation and personality traits can help organizations better motivate and manage them, improving overall job performance and satisfaction.

Although there have been many significant research contributions to intrinsic motivation, SDT is critical in this study. SDT is the leading theory for studying human motivation and effectively identifies factors influencing motivation and behavior (Gilal et al., 2019). All humans have various basic psychological needs, which is the fundamental assumption of SDT. The theory emphasizes that individuals' inherent psychological needs, such as autonomy, competence, and relatedness, are essential for stimulating positive autonomous motivation. By meeting these

needs, SDT provides a framework for understanding individual behavior and motivation, providing valuable guidance for practice and research.

While previous research has engaged with SDT and its application to work drive and organizational practices, Van den Broeck et al.'s (2010) study highlights the importance of achieving autonomy, competence, and relatedness in the workplace sex (Gagné & Deci, 2005; Van Den Broeck et al., 2010). According to SDT, employees' drivers of motivation are influenced by their perception of their workplace atmosphere and their understanding of the consequences of their behavior. This means that how employees perceive their workplace atmosphere and expectations and knowledge of the consequences of their work behaviors will directly affect their motivation levels. It emphasizes the degree of forward influence, independent choice, and internalization of behavior (Shuck et al., 2018).

The optimal form of motivation originates from the internal regulation of basic psychological needs, which include autonomy, competence, and relatedness. When employees feel that their autonomy is respected, they can use their competencies and positive interpersonal connections; they tend to experience a rise in intrinsic motivation. This intrinsic motivation is long-lasting and autonomous, driving employees to pursue goals and achieve more long-term than external rewards. Therefore, by delving deeper into the association between these three factors and work-driving forces, we can explore understanding the role of intrinsic job motivation and guide designing more effective work environments and incentives.

Basic Psychological Needs of SDT

SDT states that an individual's traits and work environment influence their needs, especially three basic psychological needs: autonomy, competence, and relatedness (Ryan & Deci, 2002; St-Onge & Beauchamp Legault, 2022). SDT emphasizes the worth of meeting these three basic psychological needs:

Autonomy: The individual desires the freedom to make independent choices without external constraints.

Competence: This includes the individual's pursuit of the possibility of self-development and realization.

Relatedness: The individual wants to feel connected to a group and gain social recognition and support.

By satisfying these three basic psychological needs, stronger intrinsic motivation can be stimulated: autonomy (feeling empowered and having choices), competence (feeling able to complete tasks and exert abilities efficiently), and relatedness (being connected with and valued by others) (Ryan & Deci, 2000b). This increase in intrinsic motivation can not only promote individual growth and development but also help improve work performance and job satisfaction.

As shown in Figure 1, satisfying these basic psychological needs forms the central principles of SDT. This theory also emphasizes that employees' intrinsic work motivation will be enhanced when these needs are met. SDT provides a comprehensive theoretical framework that helps to understand human motivation better and has been put into practical use in all areas of life. SDT is essential to explaining individuals' motivation, satisfaction, and performance in work and life environments. Through the perspective of SDT, we can gain a deeper understanding of the source of an individual's intrinsic motivation and how to stimulate higher intrinsic motivation by satisfying the individual's basic psychological needs. This is essential for personal development and well-being and enhances the organization's effectiveness and employees' job satisfaction.

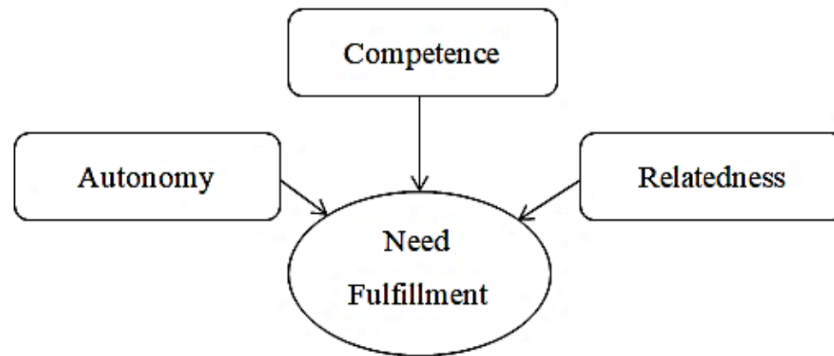


Figure 1 Need Fulfillment from Self-Determination Theory (SDT) by Deci and Ryan (2000)

The first need for autonomy in the workplace is a crucial concept that emphasizes the desire of individuals to be able to freely make choices and act following their preferences and values (Dattilo et al., 2018; Quested et al., 2021; St-Onge & Beauchamp Legault, 2022; Wehmeyer, 2011). Individuals who work according to their preferences and ideas gain greater freedom and satisfaction. Individual autonomy requires people to feel independent, set goals, and decide their behaviors autonomously while exercising control (Ryan & Deci, 2017). The need for freedom involves a high degree of individual thinking, agency, responsibility, and independence in action.

However, when autonomy needs cannot be met, individuals will be driven by the external environment or internal pressure, causing them to engage in some behaviors against their preferences and wishes (St-Onge & Beauchamp Legault, 2022). In this process, individuals may feel they have no autonomy in acting, leading to reduced motivation and negative work attitudes. It is important to emphasize that autonomy pertains to an individual's capability to make choices and take actions based on his or her values and wishes while cooperating and interacting with others to achieve common goals. It does not imply separation from others. Meeting autonomy needs is critical to promoting positive work attitudes and motivation.

The second need for individuals is competency needs, which emphasizes that they possess the skills to perform tasks and remain productive (Brooks et al., 2018; St-Onge & Beauchamp Legault, 2022). Competence needs are related to a person's capacity to express themselves effectively and have the opportunity to utilize and demonstrate one's talents and skills when interacting with the social environment (Ryan & Deci, 2002). Competence needs also relate to the skills required to perform a task and the willingness to remain productive. At the same time, it includes individuals' willingness to actively seek opportunities to demonstrate their abilities when facing difficulties and challenges and to improve work skills to obtain good career prospects.

When competency needs are met, individuals can feel confident and competent at work, perform tasks better, and actively seek challenges to improve their abilities. This sense of self-confidence and competence helps increase motivation at work because employees believe they can complete jobs. However, when this need is unmet, individuals often feel powerless, lose a sense of empowerment, and think they cannot achieve their goals (Dattilo et al., 2018). This may lead to decreased individual work motivation as employees may be unable to help perform organizational tasks effectively. Therefore, meeting individual competency needs is critical to increasing employee satisfaction, promoting engagement, and achieving organizational goals. These studies demonstrate the importance of administrative individuals' pursuit of improving work capabilities and skills.

The third type of personal needs is relational, including the need to connect with others, care for others, and feel cared for (Ryan & Deci, 2002). Relational needs cover the sense of

belonging to other individuals and other elements of the social environment and are, therefore, closely related to an individual's feeling of belongingness in the social environment (Brooks et al., 2018; St-Onge & Beauchamp Legault, 2022). Specifically, when individuals' relational needs are met, they usually establish emotional connections with the workplace, feel that they are part of the workplace community, actively participate in interpersonal interactions, and build good interpersonal relationships (Brooks et al., 2018; St-Onge & Beauchamp Legault, 2022).

When relational needs are met, individuals view the work environment as a place that supports and understands them, mobilizing employees' work attitudes, promoting teamwork, and increasing productivity. Employees interact more positively with colleagues, solve problems together, and demonstrate higher emotional investment. This has important implications for organizations because employees' positive work attitudes and good interpersonal relationships can improve job satisfaction, performance, and overall productivity.

However, when relational needs are unfulfilled or hindered, individuals may feel a need for belonging in the workplace. They may feel alienated from colleagues, lack emotional support, or feel lonely. This low mood and lack of belonging can hurt employee job satisfaction and emotional well-being. In addition, due to the lack of positive interpersonal relationships and support, cooperation among team members may be threatened, and an excellent cooperative atmosphere cannot be established, thereby reducing the cooperation efficiency of the entire team. Therefore, satisfying personal and relational needs is critical to creating a positive work environment and improving employee job satisfaction, performance, and teamwork.

Previous research has shown that all three needs are crucial to individuals. For example, Sheldon and Niemiec. (2006) have confirmed that the best results can be obtained when an individual's three needs are equally satisfied at the same time. Therefore, in the work environment, organizational managers should pay attention to these three needs of individuals. As SDT explains, whether individuals meet these three psychological needs or experience setbacks will profoundly affect their work motivation, including autonomous and control motivation (St-Onge & Beauchamp Legault, 2022).

Autonomous motivation explains situations where an individual takes action voluntarily, without external pressure (St-Onge & Beauchamp Legault, 2022). Individuals show complete willingness, independent will, and conscious choice to participate in an activity under autonomous motivation (Deci & Ryan, 2008). This motivation arises from the free will of individuals who feel their actions stem from intrinsic interests, values, or goals. When individuals' needs for autonomy, competence, and relatedness are met, they tend to experience intrinsic motivation because they believe they have choice and control in their actions, which is autonomous. They feel that their actions match their inner values and interests. In this case, motivation is lasting and beneficial, helping individuals to engage more deeply in tasks, enjoy work, and produce higher job satisfaction.

Controlled motivation represents individuals acting due to internal pressures (such as the need to evade shame or guilt) or external pressures (such as obtaining rewards or avoiding punishment). This type of motivation is usually low because individuals believe their behavior is caused by external control or pressure rather than internal drive. Individuals need more autonomy and interest, which may lead to job dissatisfaction and reduced performance.

In contrast, autonomous motivation is generally related to higher work satisfaction, stronger intrinsic motivation, and better job performance. This is because individuals are more engaged and satisfied with their actions. Controlled motivation causes individuals to feel that their behavior is externally controlled and lacks genuine autonomy, which might result in tiredness, anxiety, and decreased workability.

In the workplace, intrinsically motivated individuals tend to take initiative while performing tasks, strive for excellence, and be willing to take on additional work responsibilities. This

helps improve work performance and promote a constructive work atmosphere. Therefore, understanding and meeting employees' needs for autonomy, competence, and relatedness is essential to stimulate employees' intrinsic motivation and promote employees' voluntary behavior.

This can also help organizations develop motivational strategies to better meet employees' psychological needs, thereby improving their work motivation and performance. Based on these research results, organizational managers must understand individuals' autonomy, competence, and relatedness needs and their impact on work motivation. These needs are met by creating a favorable work environment that encourages employees to act autonomously, improves their abilities, and promotes the development of social relationships. Personal autonomy gives employees more opportunities to participate in decision-making, avoids strict supervision and management, stimulates intrinsic interests, and promotes employee cooperation and team building.

Types of Motivation for SDT

SDT distinguishes between different forms of work motivation, covering qualitative differences behind motivation. Autonomous motivation refers to employees freely participating in work because of the intrinsic enjoyment it brings (intrinsic motivation) or because they identify with the meaning of work. This manifestation of motivation stems from the individual's internal drive and the identification of the significance and meaning of the job itself (Fernet et al., 2015, 2017). Controlled motivation includes working for external factors, such as recognition or rewards (external regulation), or for internal factors, such as enhancing self-esteem or avoiding guilt and anxiety (intrinsic regulatory pressure) (S.-G. Trépanier et al., 2015). Autonomous motivation helps promote well-being and optimal work functioning, such as increased work performance, commitment, and engagement. In contrast, controlled motivation is related to negative impacts, such as distress, departure intentions, and professional burnout.

Understanding and stimulating autonomous motivation is essential to creating a positive work environment. Organizations can enhance employees' intrinsic motivation by providing more autonomy and recognition, improving their job satisfaction and performance. On the other hand, reducing reliance on external rewards and pressure can help reduce employees' controlled motivation and reduce the likelihood of maladaptive outcomes. Therefore, SDT provides a theoretical basis to help organizations develop more effective motivational strategies to improve employees' motivation levels and overall performance.

As shown in Figure 2, SDT divides motivation into three main types: amotivation, extrinsic motivation, and intrinsic motivation. These motivations are distinct (Jowett et al., 2013)

Amotivation refers to an individual's lack of motivation to take action. Under these circumstances, the individual has no interest in the task and does not see any value or meaning associated with it. Hence, they are unwilling to put in any effort. Amotivation may be caused by feeling helpless and believing that their actions will not bring about significant changes or results, resulting in the individual having no motivation and enthusiasm for the task.

External, separable factors, such as external pressures or desired outcomes, drive extrinsic motivation. This includes acting to obtain rewards or avoid punishment. For example, individuals may work hard to avoid guilt and shame or to earn money.

Intrinsic motivation stems from internal drives within the individual, such as finding pleasure and satisfaction in the behavior. This motivation stems from interest and enjoyment in the activity, such as doing a meaningful and enjoyable job. Intrinsic motivation represents an individual's genuine interest and spontaneous involvement in the activity, and this type of motivation is often associated with great work satisfaction and better job performance.

A deep understanding of motivation types by managers plays a vital role in the adequate progress of work. By identifying and promoting employees' intrinsic motivation, managers can design more effective incentives, reduce instances of amotivation, and improve overall job satisfaction and performance.

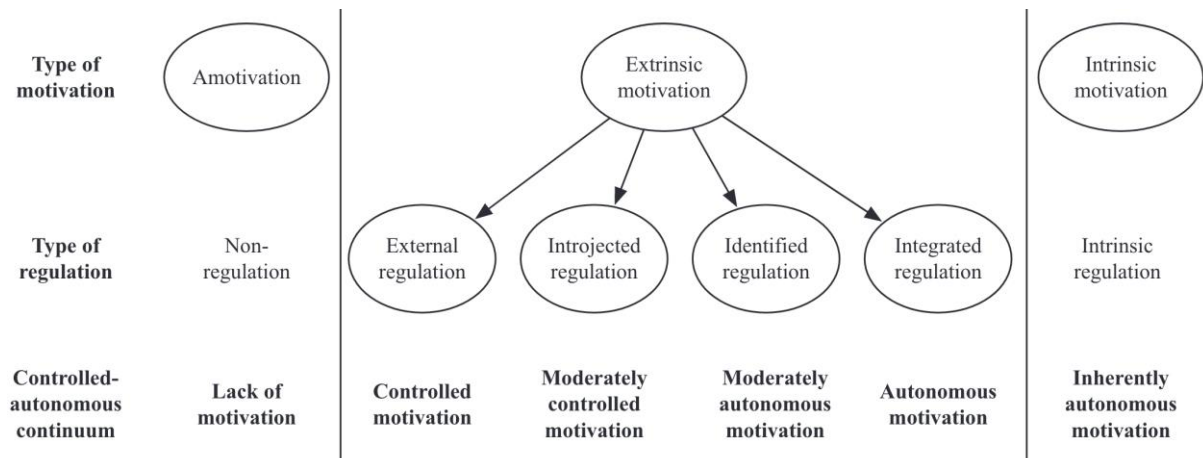


Figure 2 Controlled-to-autonomous continuum in SDT (Ju, 2020)

According to SDT, behavior is driven by various motivations that vary across a continuum of autonomy (Deci & Ryan, 1985; Ryan & Deci, 2017). This means that intrinsic and extrinsic motivations influence an individual's behavior, which varies with varying degrees of individual autonomy. SDT provides a multidimensional perspective for explaining work motivation, including autonomous and controlled explanations (Fernet et al., 2020). In SDT, individuals usually engage in various independent activities depending on the impact of psychological functions (Fernet et al., 2020). Behavioral regulation can be divided into six types: non-regulation, external regulation, introjected regulation, identified regulation, integrated regulation, and intrinsic regulation. From the perspective of motivation it can be divided into three levels: intrinsic motivation, extrinsic motivation and amotivation (Cole et al., 2019; Gagné & Deci, 2005). This theory helps us better understand the sources of employee motivation and allows organizations to develop a work atmosphere that supports intrinsic motivation.

As shown in Figure 2 describes motivation as a construct that can be arranged on a continuum: from unmotivated (unmotivated or unintentional) to extrinsically motivated (controlled) to intrinsically motivated (autonomous) (Ryan & Deci, 2002).

Intrinsic motivation is an essential type that reflects individuals who take positive actions because they derive pleasure and satisfaction from activities (Fernet et al., 2020; Gagné & Deci, 2005). Intrinsic motivation is autonomous, meaning individuals enjoy engaging in activities driven by their interests, values, and goals (Stephan et al., 2008). Intrinsically motivated behavior is a form of autonomous behavior that people typically perform autonomously out of interest in the activity itself (Gagné & Deci, 2005).

According to the research findings of Stephan et al. (2008), intrinsic motivation can be divided into three types: Knowledge motivation, achievement motivation, and stimulation motivation. Knowledge-seeking motivation aims at individuals gaining emotional pleasure through learning. Achievement motivation seeks to achieve personal goals and gain a sense of accomplishment. Stimulation motivation refers to individuals seeking to participate and experience excitement (Gagné & Deci, 2005). Knowledge motivation reflects an individual's enjoyment of learning and acquiring knowledge. Achievement motivation emphasizes an individual's desire to pursue personal goals and success. Stimulation motivation involves the individual's pursuit of engaging and exciting experiences.

Conversely, extrinsic motivation refers to individuals taking actions to achieve external goals or results rather than out of intrinsic interests or values. This type of motivation emphasizes the role of external factors in driving individual behavior rather than the individual's intrinsic interest in the activity itself (Deci & Ryan, 1985). Extrinsic motivation can be divided into three types (Gagné & Deci, 2005), each reflecting different degrees of external driving forces on individual behavior.

External regulation (controlled motivation): Considering this circumstance, an individual's behavior is controlled by external factors, and they participate in a project to obtain rewards or avoid punishment. This type of motivation is the most influenced by external pressures, and individuals may feel compelled to perform tasks rather than doing so voluntarily.

Introjected regulation (moderately controlled motivation): According to SDT, internalization refers to the process through which an individual absorbs the values and attitudes of others and integrates them into their self-awareness (Deci & Ryan, 2004). Introjected law involves individuals partly being influenced by external factors in their activities, but they also internalize these activities and perceive them as valuable. This type of motivation falls somewhere between autonomy and control, with individuals experiencing some degree of intrinsic motivation while still being influenced by external factors.

Behavior under the stress of external events is generally considered controllable, meaning individuals can regulate and manage their actions when facing external pressure. However, SDT posits that external regulation can gradually transform through internalization into internal or more autonomous regulation (Black & Deci, 2000; Gagné & Deci, 2005). This internalization process allows individuals to assimilate external values and attitudes, integrating them into their behavioral standards and motivational systems, thereby enhancing autonomy and intrinsic motivation. This shift not only helps to increase an individual's sense of self-efficacy but also enables them to exhibit more remarkable persistence and resilience when facing challenges and pressure. In this way, individuals can maintain high motivation and performance even in environments with external pressures.

Identified regulation (moderate autonomous motivation): This type of external motivation focuses on individuals participating in an activity because they recognize its importance in achieving personal goals. Individuals feel more independent because they identify the significance of the action, even if external factors still play a role to some extent. Additionally, motivation represents individuals who lack motivation and intention to control their behavior (Cole et al., 2019). They may have little interest or drive for a particular activity and need more precise goals or motivation to move them.

As described by SDT, integrated regulation represents a form of motivation in which individuals engage in activities because they have fully internalized the values and goals associated with those activities (Deci & Ryan, 1985). It belongs to a spectrum of motivation types, from extrinsic to intrinsic motivation, and reflects a comprehensive understanding of the reasons for engaging in a specific behavior. Integrated regulation demonstrates that individuals find meaning and meaning in an activity and pursue it because they believe it is consistent with their core values and goals. This motivation stems from external factors internalizing person's intrinsic motivation, such as rewards or recognition from others, making them self-determined (Ryan & Deci, 2000b). Individuals who engage in behaviors outside of comprehensive supervision do so voluntarily and autonomously because they believe these activities are personally meaningful and consistent with their intrinsic desires and values.

Integrated regulation is characterized by a high degree of self-determination associated with long-term and sustained behavioral engagement because individuals perceive their participation to be voluntary and consistent with their self-identity (Vallerand et al., 1997). This form of motivation is critical to understanding why people engage in various activities and maintain commitment over time, even in the face of challenges or obstacles.

Methods

This study primarily constitutes a qualitative literature review research focused on the significance of SDT on work motivation. This study adopted a systematic literature review method and followed the writing steps proposed by Wolfswinkel et al. (2013). The research method steps are shown in Figure 3.1.

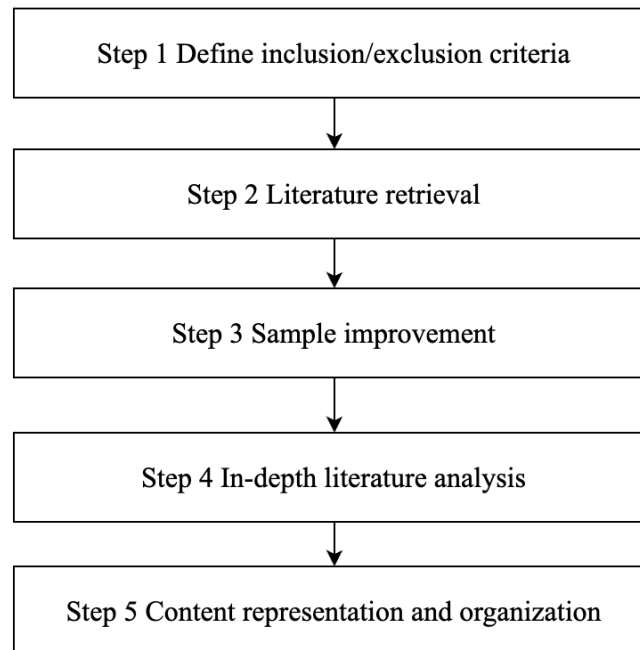


Figure 3 Research method steps

Step 1- Define inclusion/exclusion criteria: Following the procedures of existing research, this paper defines the domain of the study (Palmatier, 2016; Rana & Paul, 2017). The inclusion and exclusion criteria of the literature were clearly stated in the study. This study limits the included literature to those published between 2014 and 2023. It also requires that these articles belong to the field of business economics or have passed peer review and must be written in English.

Step 2- Literature retrieval: The relevant literature selected in this article mainly comes from two databases and is not limited to specific research fields: Web of Science and Scopus. This database is widely considered reliable and covers various research fields. This study conducted searches using the following keywords based on earlier meta-analyses: (a) motivation and (b) Self-Determination Theory. This study further filtered articles from the Web of Science database between 2013 and 2023, with 611 articles with the search term “work motivation” and 2066 articles with “Self-determination Theory” in the titles.

Step 3- Sample improvement: This study conducted a preliminary screening of the search results to exclude duplicate literature and literature that did not fulfill the requirements for inclusion. Finally, high-quality documents are screened based on journal partition and citation count indicators. This step helps to narrow the scope of the research sample and ensure the quality of the selected literature, thereby improving the accuracy of the research results.

Step 4- In-depth literature analysis: This study adopts content analysis techniques and draws on Gibbs's (2009) method to conduct a detailed content analysis of the literature chosen for the study. Through this technique, this study successfully expanded the understanding of concepts related to SDT in work motivation.

Step 5- Content representation and organization: The final step is to reorganize the data extracted from the literature, including definitions, characteristics, consensus points, and

controversial points. These extracted contents will help construct a new research framework and help scholars gain a great insight into the impact of SDT on job motivation.

By taking these steps, this study could systematically acquire, analyze, and organize relevant literature and identify research consensus and controversial points on related concepts. This process provides a solid theoretical foundation for this article's research, allowing for a more comprehensive exploration of an essential topic in knowledge management. This method helps build a theoretical framework but also helps to guide actual investigation and analysis, ensuring that the research is more targeted and scientific.

Findings

As one of the main motivation theories, SDT has been widely used in sports, education and other fields. (Howard et al., 2017). The most significant difference between SDT and other motivation theories is that it provides multiple dimensions of motivation concepts and clearly distinguishes different types of motivation and their effects (Vansteenkiste et al., 2009). In contrast, SDT distinguishes intrinsic motivation, extrinsic motivation, and amotivation, highlighting the different impacts these types of motivation have on individual behavior and performance.

This study comprehensively reviewed the literature on SDT in the field of work motivation and identified the following key findings:

1. The core role of basic psychological needs on work motivation: SDT believes that meeting employees' needs for autonomy, relevance, and competence will enhance their intrinsic motivation (Gagné & Deci, 2005). Wang and Li. (2016) pointed out that consumers' perception of competence, autonomy, and relatedness can enhance their motivation to create user-generated content. The literature consistently emphasizes that fulfilling employees' basic psychological needs is crucial for stimulating intrinsic motivation. When these needs are achieved, employees tend to exhibit positive work behaviors, including higher job satisfaction and performance.

Within a business environment, fulfilling of the need for autonomy is essential. Employees seek autonomy in making choices and acting in alignment with their preferences and values. When employees' need for autonomy is fulfilled, they experience increased freedom and satisfaction, enhancing their work motivation. Meeting employees' competence needs makes them feel confident and capable in their work, encouraging them to actively perform tasks and challenge themselves to improve their skills. When competence needs are not met adequately, individuals may experience feelings of inadequacy, thereby decreasing work motivation. The fulfillment of relatedness needs is closely tied to emotional connections and teamwork within the work environment. Building harmonious relationships, caring for others, and feeling cared for create a positive work environment, improve employees' emotional well-being, and promote team collaboration.

2. There exists a positive relationship between intrinsic motivation and performance. Research shows that intrinsic motivation is a manifestation of autonomous motivation (Gagné & Deci, 2005). Intrinsic motivation significantly impacts performance and has been empirically proven to correlate with performance positively (Van Der Kolk et al., 2019). Intrinsic motivation is closely related to employees' high performance and positive work behavior. The more positively employees perceive their work environment, the more likely they will be motivated by intrinsic factors and demonstrate higher behavioral intentions regarding key performance indicators, such as discretionary effort and recognition (Shuck et al., 2018). Employees tend to participate voluntarily in tasks, pursue excellence, and demonstrate higher work engagement when experiencing intrinsic motivation. This is of great significance for the long-term success of the organization.

3. The negative impact of controlled motivation: Within the SDT literature, researchers contend that autonomous regulation is preferable to controlled regulation. Studies indicate that autonomous regulation is positively associated with well-being, satisfaction, happiness, performance, and flourishing (Deci & Ryan, 2000; Ryan & Deci, 2017). Controlled motivation regulation can only have a short-term impact on behavior, and it is not easy to maintain long-term behavior. In contrast, autonomous motivation can trigger sustained consumer participation, and this perspective aligns with the principles of SDT (Gilal et al., 2019). Literature suggests that controlled motivation may lead to employee dissatisfaction, anxiety, and job inactivity. When employees feel external control or pressure, they are more likely to experience controlled motivation, negatively impacting the organization.

Overall, these research findings emphasize the importance of SDT as a theoretical framework and provide valuable insights for us to gain a deeper understanding of work motivation. By focusing on meeting the fundamental needs of workers, organizations can shape a positive job environment and improve workers' motivation and performance. This multidimensional perspective not only helps in comprehensively understanding the complexity of motivation but also provides more prosperous strategies for practical applications to foster sustained motivation and optimal performance across various environments.

Discussion and Conclusion

Although the close connection between SDT and work motivation has been widely recognized in early literature, more in-depth research and analysis are still needed to understand this relationship fully. This study conducted a more in-depth exploration of motivation types based on SDT theory through the organization, analysis, and research of existing literature. This study explores the theoretical foundations and applications of SDT to work motivation. By satisfying employees' autonomy, competence, and relatedness needs, organizations can effectively enhance employees' intrinsic motivation, thereby improving their job satisfaction and overall performance.

This research's analysis of previous literature shows that meeting employees' basic psychological needs is critical to promoting intrinsic motivation. The satisfaction level of autonomy and competence needs is negatively related to extrinsic motivation, while relatedness needs have nothing to do with extrinsic motivation. Each basic need correlates positively with introversion, identification, and intrinsic motivation (Van den Broeck et al., 2016).

The satisfaction level of these needs is associated with greater employee job satisfaction, performance, and work engagement. This insight underscores the critical importance of organizational leaders in establishing a supportive work environment, meeting these basic psychological needs, and encouraging employees' intrinsic motivation. When reward justifications are informative, they communicate positive messages about competence, thus meeting recipients' fundamental psychological needs for competence and boosting intrinsic motivation (Deci et al., 2017).

Intrinsic motivation is closely related to employees' high performance and positive work behaviors. Employees are predisposed to volunteer for work tasks, pursue excellence, and be willing to take on additional responsibilities when they experience intrinsic motivation. This research dramatically benefits organizations by improving work performance and creating a positive work atmosphere. Existing literature also addresses the adverse effects of controlled motivation. When employees feel externally controlled or pressured, they are more likely to experience controlled motivation, which can lead to dissatisfaction, anxiety, and demotivation at work. The use of controlled rewards by managers to motivate employees may not only weaken their autonomy. Still, it may also lead to employees focusing too much on tasks directly related to rewards and neglecting work that does not motivate the organization but has significant value (Deci et al., 2017).

This literature review highlights the profound impact of SDT as an essential theoretical framework for employee work motivation. Organizational managers must avoid unnecessary external controls and pressures to promote more intrinsic motivation among employees. Organizations can achieve higher work motivation by meeting employees' basic psychological needs.

The application of SDT is of widespread importance in the workplace. Meeting these basic psychological needs can stimulate intrinsic motivation, engage employees more actively in tasks, and improve job satisfaction and performance. SDT provides organizations with a necessary framework that can help improve employee motivation, pride, and performance. In-depth study and application of SDT principles will aid in establishing a more favorable and efficient work atmosphere, improve employee happiness, and positively impact the organization's long-term success and competitiveness. By understanding and meeting employees' basic psychological needs, managers can build healthier, more dynamic, and creative workplaces that lead to mutual success for individuals and organizations.

Theoretical Implications

The theoretical influence of this article is mainly reflected in the study of SDT in work motivation and its implications for related research and practice. A detailed exploration of SDT shows its value as a theoretical framework in work motivation research. SDT provides profound theoretical insights and helps researchers better understand employees' motivational driving forces in the work environment, providing a solid academic foundation for work motivation research. The following are the main theoretical contributions of SDT in the field of work motivation:

1. This article combs the relevant literature on SDT based on work motivation, emphasizing the internal motivation of three basic psychological needs of individuals, namely autonomy, competence, and relatedness (Deci & Ryan, 1985). This theory reveals the close connection between satisfying these psychological needs and intrinsic motivation, profoundly affecting work motivation (Gagné & Deci, 2005). This article provides a basis for subsequent scholars' research on work motivation.
2. Reviewing previous literature in this article, we found that SDT emphasizes the role of organization and work environment, especially in providing autonomy, competence, and relationship support (Ryan & Deci, 2017). Van Den Broeck et al.'s (2010) research further verified the positive impact of supportive factors on employees' intrinsic motivation. Their research highlights the unique role that a supportive work environment plays in enhancing employees' intrinsic motivation. Specifically, these environmental factors can significantly improve employee job satisfaction and overall performance.
3. Based on the research results of other scholars, a distinction is made between intrinsic and extrinsic motivation, and the dynamic relationship between the two is pointed out. There is also a profound understanding of SDT: intrinsic motivation is more conducive to long-term job satisfaction and performance. In contrast, extrinsic motivation may lead to short-term results but limited long-term effects (Ryan & Deci, 2017).

These theoretical research results provide a conceptual framework for subsequent research, help explain the mechanism of work motivation, and provide theoretical guidance for managers to create a job environment that can better meet the psychological needs of workers. The research results of this article provide a solid foundation for in-depth understanding and optimization of work motivation in organizations.

Practical and Social Implications

The research of this article found that SDT is a theoretical framework widely used in the study of social relations in the workplace. It provides a solid academic foundation for explaining and understanding employees' motivations and behaviors (Deci & Ryan, 2008).

Extrinsic motivation reflects the degree to which an individual is influenced internally and externally at work, ranging from complete control to partial autonomy to more significant independence. It is critical to understand the effects of assorted forms of extrinsic motivation on individual behavior. This theory helps managers better understand how employees are motivated in the workplace and how satisfying their intrinsic needs can inspire higher levels of autonomous motivation. Understanding employees' intrinsic motivations and psychological needs can help organizations design more humane work environments. By providing support and motivation, organizations can promote employee autonomy, competence, and belonging, better meet employee needs, and increase job satisfaction and performance.

Research shows that in SDT, motivation is considered a core variable and provides a robust framework for predicting job results such as engagement, job contentment, and organizational commitment. SDT emphasizes the importance of satisfying psychological needs to stimulate high levels of autonomous motivation. In a work environment that meets employees' basic psychological needs, employees are more likely to experience intrinsic motivation, which prompts them to show more positive work attitudes and higher work motivation (Fernet et al., 2020). Conversely, in work environments with unmet psychological needs, employees might encounter elevated levels of controlled motivation, resulting in decreased satisfaction and reduced organizational commitment (Fernet et al., 2020). Understanding what motivates individuals toward tasks and work environments can help companies recruit, train, and motivate employees more effectively. This not only improves employee performance but also helps reduce employee turnover and supports the long-term sustainable development of the organization.

Research on SDT and work motivation also has implications for formulating social policies. Regarding labor markets and vocational training, governments and relevant agencies can develop more inclusive and sustainable policies by better understanding the motivations and needs of individuals. This helps create a more just and social environment conducive to individual development.

Limitations and Suggestions for Future Research

There are several limitations to the findings and conclusions of this study. Although SDT provides a framework for managers to understand work motivation, it has several limitations that must be considered in future research and applications. Firstly, most current research on SDT is primarily based on Western culture. Therefore, the applicability of this theory in different cultural contexts needs to be further studied, especially in Eastern Confucian culture. Future research could enhance the discussion of the relevance of the SDT framework across different cultures. Other cultures may emphasize autonomy, competence, and relatedness needs, so SDT principles must be applied carefully in different cultural contexts.

Secondly, in actual work, employees' motivations are usually complex and diverse, including a mixture of intrinsic and extrinsic motivations. SDT divides motivation into two extremes: autonomous and controlled, but in actual situations, employee motivation usually falls between these two extremes. Therefore, this complexity must be considered when studying employee motivation. Future research could develop more complex motivation models that better capture the diversity of individual incentives to understand better intrinsic motivation, extrinsic motivation, and the interaction between the two and how these combined motivations are managed and motivated.

Thirdly, ensuring accurate measurement of these psychological variables is critical to the reliability of the study. The measurement concepts of autonomy, competence, relatedness

needs, and intrinsic motivation are challenging in practical research. These challenges require researchers to continuously improve existing measurement tools and develop more accurate assessment methods to measure autonomy, skill needs, relatedness needs, and intrinsic motivation more effectively. SDT provides a solid theoretical foundation for scholars to understand work motivation and employee behavior. However, in practical applications, its limitations must be considered to meet the needs of different staff members better and cultivate a workplace climate that supports intrinsic motivation.

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