The impact of reward frequency on employee motivation: A comparison of cash vs. tangible rewards

Satesh Sookhai, The University of West Indies, Trinidad and Tobago, satesh.sookhai@my.uwi.edu

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Abstract

Rewards management is crucial in human resource management to enhance employee motivation and performance. Recently, organizations have shifted their reward strategies, focusing on tangible rewards and varying reward frequencies. Cash rewards, monetary payments for task completion, and outstanding performance are contrasted with tangible rewards and non-monetary incentives like gift cards and travel vouchers. This study explores the impact of reward frequency on employee motivation, comparing the effects of cash rewards versus tangible rewards. Tangible rewards often increase motivation more effectively than cash rewards due to their hedonic nature, as opposed to the utilitarian nature of cash. According to mental accounting theory, individuals treat cash rewards similarly to their salary, while tangible rewards are perceived separately, offering more enjoyment. This research aims to provide insights into the effectiveness of reward types and frequencies, contributing to the understanding of optimal reward strategies for enhancing employee motivation and performance. The study proposes using an experimental survey design to test the relationships between variables.

Keywords: Cash Rewards, Tangible Rewards, Reward Frequency, Employee Motivation

Introduction

Rewards management is a fundamental aspect of Human Resource Management (HRM), utilized by organizations to enhance outcomes such as employee motivation and performance (Matloob et al., 2021; Kankising & Dhliwayo, 2022). In recent times, organizations have altered their reward strategies for several reasons, including the preference for tangible rewards over cash rewards and changes in the frequency of rewarding employees (Payscales, 2020; Newman et al., 2024; Choi & Presslee, 2020). Cash rewards are payments given to employees for completing tasks and outstanding performances. In contrast, tangible rewards are nonmonetary incentives for similar achievements (Choi & Presslee, 2020).

Tangible rewards do not offer recipients the flexibility of choice but hold monetary value, such as gift cards, redeemable points, travel vouchers, and more (Kelly et al., 2017; Choi & Presslee, 2020). This reward has been shown to increase employee motivation and, in some cases, has proven more effective than cash rewards (Kelly et al., 2017). Tangible rewards are hedonic, while cash rewards are utilitarian. According to the mental accounting theory, individuals who receive cash rewards are placed in the same mental account as their salary. In contrast, tangible rewards are viewed separately, leading to greater enjoyment. A study conducted by Incentive Federation Inc. (2016) found that more than 85% of US businesses offer tangible rewards, with approximately $90 billion spent on such rewards in 2015.

The effectiveness of cash rewards has also been investigated, demonstrating their positive impact on employee motivation. Thibault Landry et al. (2022) provide new evidence on how cash rewards can influence motivation levels through the lens of self-determination theory (SDT). Previously, the SDT suggested improperly used cash rewards could negatively affect intrinsic motivation. However, Thibault Landry et al. (2022) explained that cash rewards can positively impact employee motivation when presented in an informative, supportive, and encouraging manner. While the literature on cash versus tangible rewards is conflicting, this study aims not to dispute existing agreements but to compare the motivational effects of cash rewards versus tangible rewards.

Reward frequency comprises three primary components: the quantifiable amount, notification of reward, and distribution of reward (Stefaniak et al., 2024). The quantifiable amount refers to the monetary value, such as $5. Notification of reward concerns how frequently individuals are informed of receiving rewards. Distribution refers to how often individuals receive rewards, whether immediately after completing a task or on a scheduled basis, such as weekly or monthly.

This study will focus on examining the distribution of rewards when testing reward frequency, as per the reinforcement theory, which posits that individuals who receive rewards for desired behavior are likely to continue such behavior (Skinner, 1957). Additionally, the mental accounting theory suggests that the effectiveness of reward frequency depends on the type of reward; cash rewards, for instance, tend to sustain higher levels of employee motivation over time compared to tangible rewards (Thaler, 1999; Redden & Haw, 2013). This disparity may arise because tangible rewards are finite and may diminish in satisfaction over time (Newman et al., 2024). Therefore, this study explores how varying reward frequencies of both cash and tangible rewards can influence employee motivation.

Despite the growing body of research on rewards management, there remains a gap in understanding the impact of reward types, reward frequency, and their effect on employee motivation within organizations (Newman et al., 2024; Newman et al., 2023). This study aims to fill this gap and contribute to the literature on compensation management, which has traditionally focused on conventional forms such as flat wages and performance-based rewards (Kelly et al., 2017; Kachelmeier et al., 2019, 2023; Webb et al., 2013). While some studies have touched upon reward frequency, little is known about its specific influence on employee motivation (Newman et al., 2024; Newman et al., 2023; Choi & Presslee, 2020).

Therefore, this study investigates how the frequency of cash and tangible rewards impacts employee motivation using theoretical frameworks. This study research will advance understanding by examining the behavioral effects of rewarding individuals over time, drawing on reinforcement theory (Skinner, 1957; Schultz, 2015). Furthermore, the study will contribute to the literature on mental accounting by comparing cash and tangible rewards. Previous research suggests that tangible rewards may have a stronger impact on employee motivation because they are mentally categorized differently than cash (Choi & Presslee, 2023; Mitchell et al., 2022). Lastly, this study aims to contribute to self-determination theory literature, building upon recent work by Thibault Landry et al. (2022), which proposes that cash rewards, when offered in an informative and supportive manner, can positively influence employee motivation.

The study holds practical significance for human resource practitioners as it will provide empirical insights into how reward frequency and type interact with employee motivation. Specifically, it aims to illuminate the comparative effectiveness of cash versus tangible rewards in enhancing motivation. This knowledge can guide Human Resources (HR) practitioners in designing and implementing more effective incentive schemes within organizations. Furthermore, understanding the motivational impact of reward frequency is essential for optimizing resource allocation in rewards management, particularly concerning the potential costs associated with frequent monitoring (Holderness et al., 2020).

Literature Review

Employee Motivation

A motivated workforce is crucial for business success, as motivated employees significantly enhance overall performance (Matloob et al., 2021; Whitely, 2002). According to Robbins et al. (1993, p. 206), motivation is the "willingness to exert high levels of effort toward organizational goals, conditioned by the effort's ability to satisfy some individual need." Motivation manifests in two forms: intrinsic and extrinsic. Coetsee (2002) argues that intrinsic motivation is driven by internal factors like feelings, recognition, and achievement, making it less responsive to external rewards. In contrast, extrinsic motivation stems from external factors influencing task performance.

Seminal theories like Maslow's Hierarchy of Needs (1943) and Herzberg's Two Factor Theory (1959) are pivotal to deepen our understanding of employee motivation. Maslow's theory highlights five core needs—psychological, security, social, esteem, and self-actualization—that employees seek to fulfill sequentially (Gould-William et al., 2014). Herzberg distinguishes between motivators (e.g., achievement, recognition) and hygiene factors (e.g., salary, working conditions), emphasizing that while hygiene factors prevent dissatisfaction, motivators drive job satisfaction (Saiyadain, 2009). Both theories suggest that individuals require some form of reward if motivation needs to be achieved.

In Human Resource Management, rewards management influences employee motivation across various contexts (Bolatiti & Mohamoud, 2024). Effective reward systems are essential for employees to consistently produce quality work (Chama & Matafwali, 2024). Rewards in organizations encompass both financial and non-financial incentives. Financial rewards include salaries and bonuses, while non-financial rewards, such as job enrichment and recognition, are intrinsic to the job (Jacobsen & Thorsvik, 2002). Hossian & Noyon (2018) classify non-financial rewards as appraisal, delegation, and recognition, contrasting with financial rewards like pay and promotions. However, Recent trends show a shift toward reward schemes emphasizing cash and non-cash tangible rewards (Incentive Federation

Inc., 2016; Incentive Research Foundation, 2018; Newman et al., 2024). The following section will discuss the influence of cash and tangible rewards on employee motivation.

Cash Rewards

In the literature on monetary and cash-based rewards, standard economic theory generally suggests that cash rewards are preferred or, at the very least, not inferior to tangible rewards (Sittenthaler & Mohnen, 2020). Cash rewards typically take the form of profit sharing or bonuses within organizations (Condly et al., 2003). Cash is highly valued by employees as it can fulfill their personal needs and contribute to their social status (Yousaf et al., 2014). Conversely, firms may struggle to select suitable tangible rewards for employees, potentially undermining efforts to boost motivation and performance (Sittenthaler & Mohnen, 2020). Cash rewards enable employees to acquire utilitarian items, enhancing their overall satisfaction and positioning within the organization (Jeffery, 2009).

The self-determination theory (SDT) is pivotal in understanding motivation types in the context of work and rewards (Deci & Ryan, 2008; Gagne & Forest, 2008; Thibault Landry et al., 2022). SDT distinguishes between autonomous motivation, where individuals feel self-fulfilled in their tasks, and controlled motivation, which stems from external pressures (Deci & Ryan, 2008). While cash rewards have often been perceived as controlling, recent research by Thibault Landry et al. (2022) suggests that when offered in an informative and supportive manner, cash rewards can significantly enhance employee motivation. Deci and Ryan (2008) argue that informative rewards foster autonomous motivation, increasing motivation levels. Similarly, Venketsamy and Lew (2024) found supportive cash rewards positively impacting employee motivation.

Moreover, expectancy theory (Vroom, 1960) posits that motivation is influenced by expectancy (the belief that effort leads to performance), instrumentality (the belief that performance leads to outcomes), and valence (the value of those outcomes to the individual) (Vroom et al., 2015; Bandhu et al., 2024). Like SDT, expectancy theory explains the importance of rewarding efforts with valuable outcomes to enhance motivation (Bandhu et al., 2024). Therefore, it is hypothesized:

Hypothesis 1: *Cash rewards will have a significant positive effect on employee motivation compared to tangible rewards.*

Tangible Rewards

Tangible rewards are non-cash incentives that hold a monetary value, such as travel vouchers, food-related gifts, and gift cards (Newman et al., 2024; Kelly et al., 2017). According to the Incentive Federation Inc. (2016) and Incentive Research Foundation (2012), 84% of firms utilize tangible rewards to motivate and enhance employee performance (Kelly et al., 2017). These rewards can be classified as hedonic or utilitarian; hedonic rewards like gift cards and travel vouchers cater to desires, while utilitarian rewards such as gas and food gift cards fulfill practical needs (Newman et al., 2024; Choi & Presslee, 2023). Research by Mitchell et al. (2022) suggests that hedonic rewards have a stronger motivational impact than utilitarian rewards, as they are perceived as distinct from regular salary. Hence, for this study, hedonic tangible rewards will be examined and referred to simply as tangible rewards.

Regarding tangible rewards and employee motivation, researchers argue that they are more motivating than cash rewards because employees tend to view cash rewards as part of their salary (Flanagan, 2006; Odell, 2005; Choi & Presslee, 2020). Conversely, tangible rewards are perceived as separate from salary (Riedl et al., 2024). The Mental Accounting Theory proposed by Thaler (1985) explains this phenomenon, detailing how individuals categorize and evaluate financial activities. It suggests that people assign different mental accounts to salary and rewards due to their perceived differences, thus impacting their psychological value (Thaler, 1985). Studies such as Kelly et al. (2017) and Mitchell et al. (2020) have demonstrated the relevance of this theory in understanding the impact of tangible rewards on employee motivation.

Additionally, Herzberg's Two Factor Theory posits that tangible rewards act as motivators, providing immediate recognition and validating employees' efforts (Herzberg, 1957; Harunavamew & Kanengoni, 2013). Based on the discussion above, the following hypothesis is proposed:

Hypothesis *2:* *Tangible rewards will have a significant positive effect on employee motivation compared to cash rewards.*

Reward Frequency

Reward frequency encompasses three main components: the quantifiable amount of reward, notification of the reward amount earned, and the reward distribution to the employee (Newman et al., 2024). Changes in reward frequency can involve adjustments to any of these factors independently (Stefaniak et al., 2024). For instance, an organization might choose to quantify and notify employees of rewards weekly but distribute the reward every six months. Similarly, under constant conditions, an organization could provide a $50 monthly cash reward or a $600 annual cash reward twelve times a year. Likewise, tangible rewards could consist of a $50 gift card monthly or a $600 gift card annually. Thus, reward frequency pertains to how often employees are rewarded within a specified timeframe and applies to cash and tangible rewards (Newman et al., 2024; PayScale, 2023).

Research suggests that individuals prefer larger, less frequent rewards over smaller, more frequent ones (Kahneman & Thaler, 1991; Newman et al., 2024; Lehman, 2003). In contrast, the mental accounting theory posits that breaking down a large reward into smaller portions can provide greater utility to the individual (Thaler, 1985). Although the total value remains constant, offering rewards in smaller increments can influence employee motivation and performance (Newman et al., 2024). Additionally, reinforcement theory explains how increasing reward frequency can reinforce desired behaviors, leading to their repetition (Skinner, 1938). The timing of the reward for task completion plays a crucial role in shaping individual motivation and behavior (Schultz, 2015). Thus, increasing reward frequency is expected to strengthen the link between behavior and individual motivation.

However, the nature of the reward significantly impacts its effectiveness in reward frequency. According to the mental accounting and reinforcement theories, prolonged exposure to rewards affects their perceived desirability and utility (Redden & Haws, 2013). Cash rewards are more fungible than tangible rewards, allowing individuals to use them for hedonic and utilitarian purposes (Choi & Presslee, 2023; Kelly et al., 2017). Therefore, exposure to smaller cash rewards over time will likely boost motivation levels more effectively than tangible rewards (Sevilla, 2019). Based on these considerations, the following hypothesis is proposed:

Hypothesis 3*: Increases in reward frequency will have a more positive effect on employee motivation for cash rewards compared to tangible rewards.*

Figure 1 visually represents the hypothesis presented in the literature review below.

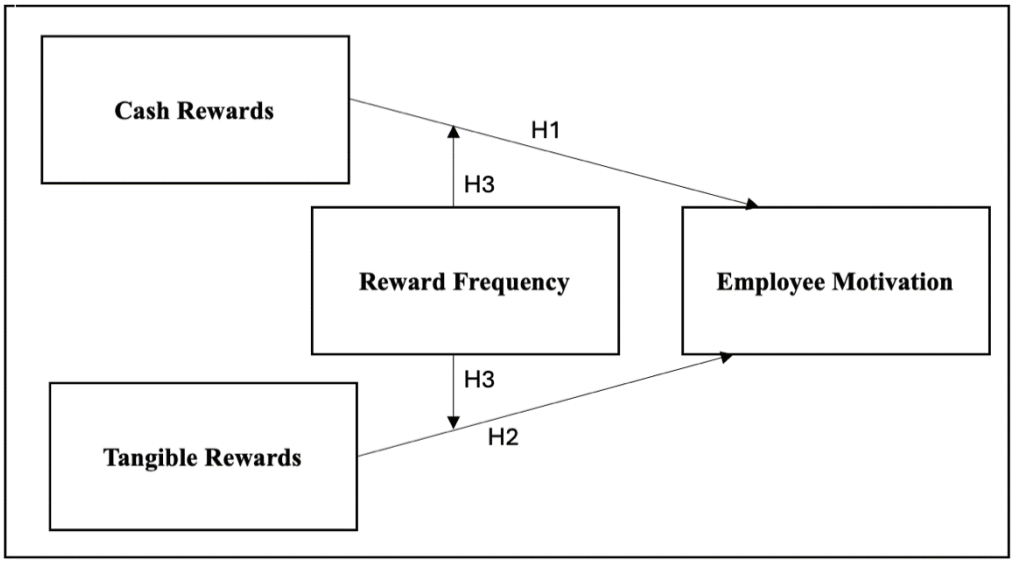

Figure 1: Research Model

Methodology

Research Design

An experimental survey research design will be employed to test the hypotheses. This design involves presenting participants with various scenarios and administering a survey immediately afterward (Baekgaard et al., 2015). This approach was chosen because previous studies in reward frequency have successfully utilized experimental research designs (Newman et al., 2024; Kelly et al., 2017; Xu, 2021). According to Arceneaux (2010), survey experiments provide a more precise method for assessing causal effects than purely observational approaches. Although less commonly used in practice (Larsen et al., 2024), survey experiments offer advantages such as data collection from a large sample and the potential for generalizability. However, a primary limitation of surveys is their inadequacy in establishing causal relationships (Schnabel, 2021). Therefore, integrating an experimental component into the survey design will enable more accurate testing of causal relationships by employing control and treatment groups (Schnabel, 2021).

Sample

The population of interest for this study comprises academic staff employed by a public university. Academic staff were chosen because they are currently employed and have direct exposure to workplace rewards, unlike undergraduates who may not be employed. The total population comprises 809 staff members, from which a sample will be selected. Taro Yamane's formula was utilized to determine the sample size (Yamane, 1967). With a confidence level of 95% and assuming a population proportion (p) of 0.5 due to uncertainty, the calculated sample size was 261 employees. However, 600 staff members will be invited to participate in the study to account for potential response rate variability. The participants will be randomized using a computer that randomly selects staff emails for participation.

Experimental Design and Procedure

For this study, two experiments were undertaken. Experiment One will be conducted, followed by a post-experimental survey. Experiment One aims to test Hypotheses One and Two, where the sample will be randomly divided into three groups using computer software. Participants will be assigned numbers, and these will determine their group allocation: Group One (control), Group Two (cash rewards), and Group Three (tangible rewards). Participants will perform a letter search task during Experiment One to simulate a real-life scenario. They will be shown a letter and asked to find its occurrences within a letter search box over 5 rounds (Kachelmeier et al., 2016). Each round will gradually increase in difficulty, and participants in Groups Two and Three will receive either cash or tangible rewards upon completing the experiment. Participants will have 5 minutes per round and proceed to the next round only if they complete the task correctly. Rewards will be distributed at the end of the 5th round. Only participants who complete a task will receive a reward. Following Experiment One, participants will complete a post-experimental survey. After collecting the surveys, there will be a 10-minute coffee break for the groups, after which Experiment Two will commence. Experiment Two will mirror Experiment One in format and tasks. However, in Experiment Two, participants will receive rewards immediately upon completing each task. Following Experiment Two, participants will complete a post-experimental survey.

Reward Manipulation

Participants in the study will be assigned to treatment groups receiving either cash or tangible rewards. Prior to the start of the experiments, participants will be asked to indicate their preference for two types of tangible rewards: a coffee shop gift card or a supermarket gift card, if a company employs them. For cash rewards, participants will receive $2.00 for each correctly completed task. To maintain internal validity, participants will not have a choice in the type of rewards offered during the experiments (Newman et al., 2024). Additionally, participants will receive a base salary of $4.00 regardless of task performance. After each experiment, participants will receive rewards as physical cash or a gift card.

Survey and Measurements

The study will employ the 12-item Motivation at Work Scale (MAWS) developed by Gagne et al. (2010) to measure employee motivation. The scale has demonstrated acceptable reliability with a Cronbach's alpha (α) coefficient 0.71 (Nordin et al., 2010). Four items adapted from Landry et al. (2022) will be utilized to assess cash rewards. Similarly, tangible rewards will be measured using four items adapted from Xu (2021). Additionally, demographic questions will be developed to gather information on participants' age, gender, income, and educational level.

Data Analysis

Before commencing data analysis, several steps will be undertaken to ensure data quality and suitability for analysis. Firstly, the dataset will be checked for missing data and outliers. The Statistical Package for the Social Sciences (SPSS) will be employed for the analysis.

As a preliminary step, factor analysis will examine the variables' correlations (Hair et al., 2014). Pearson's correlation analysis will be conducted following factor analysis to assess the strength and direction of relationships between variables (Senthilnathan, 2019). Multiple regression analysis, a multivariate technique, will be employed to test the hypotheses. Before running regression analyses, all assumptions for regression (e.g., normality, linearity, multicollinearity) will be thoroughly assessed and met. Specifically, for H1, the study will examine the direct relationship between cash rewards and employee motivation. Similarly, for H2, the direct relationship between tangible rewards and employee motivation will be tested. Finally, for H3, an interaction term will be constructed to investigate the moderating effect of reward frequency on the relationship between the type of reward (cash vs. tangible) and employee motivation.

Ethical Considerations

Before commencing this study, several ethical considerations must be addressed. Firstly, as mandated by The Office of Graduate Studies, UWI STA, approval must be obtained before data collection can begin. Therefore, the researchers will ensure that the experimental survey meets the necessary standards of the UWI Ethics Committee before proceeding. Additionally, permission will be sought from the campus management body (Campus Principal) before initiating the study.

In addition to university requirements, this study will adhere to established research ethics best practices. Informed consent from participants is paramount (Kelly et al., 2021). According to the Belmont Report (1979), participants must be treated as autonomous agents, necessitating respect for informed consent and confidentiality. Participants will be invited to volunteer for the study via email and asked to sign a consent form allowing the use of their information solely for research purposes. Consent forms will be sent electronically, and participants will be requested to provide their initials as confirmation (Greaney et al., 2012).

Furthermore, participant confidentiality will be strictly maintained by the researchers. As outlined by Oliver (2003), confidentiality ensures the privacy of participants and their data. Detailed information will be provided on how experiment data will be securely stored and used exclusively for this study. All data will be stored in a password-protected database accessible only to the researchers. Participants will be assigned unique numerical identifiers to maintain anonymity throughout the study, ensuring that no identifying information is linked to collected data (Miller & Williams, 2011).

Limitations

The researcher acknowledges potential limitations in the proposed methodology. Firstly, the findings' generalizability may be limited as the study focuses on academic staff within a university, potentially restricting applicability to other industries and organizations. To mitigate this, future research could replicate the study in various settings and among diverse populations.

Another potential limitation is the risk of response bias inherent in self-reporting surveys. To minimize this bias, participants will be assured of the confidentiality of their responses, which should encourage more honest and accurate reporting. Lastly, the external validity of experiments may be a concern since controlled environments may not fully replicate real-world tasks. Future studies could replicate tasks that closely resemble real-life scenarios or conduct field experiments to enhance external validity.

Conclusion

In conclusion, this research proposal aims to contribute valuable insights into the dynamics of reward systems and their impact on employee motivation within academic settings. By employing an experimental survey design, this study will explore the relationships between reward frequency, reward type (cash vs. tangible), and employee motivation among academic staff. The findings are expected to provide empirical evidence on which types and frequencies of rewards are most effective in enhancing motivation, thereby informing HR practitioners and organizational leaders in optimizing their incentive strategies.

Through rigorous data collection and analysis using tools such as multiple regression and factor analysis, this study seeks to advance current understanding of organizational behavior and human resource management. Practical implications include guiding the development of tailored reward systems that align with employee preferences and organizational goals, potentially leading to improved performance and job satisfaction. By addressing ethical considerations and ensuring methodological rigor, this research aims to contribute to academic literature and practical applications in organizational settings. Ultimately, the goal is to foster environments where employees are motivated and engaged, thereby promoting overall organizational success and well-being.

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