

Perceived Collective Efficacy Among Groups: Bridging Budget Control System with Team Effectiveness in University

Desi Ilona

Accounting Department, Universitas Ekasakti, Padang, Indonesia

Email: desiilona@unespadang.ac.id

ARTICLE INFO :

Keywords :

Budget control system, perceived collective efficacy, and team effectiveness.

Article History :

Received :2025-05-14

Revised : 2025-05-30

Accepted :2025-06-23

Online :2025-06-24

ABSTRACT

This study examines the role of perceived collective efficacy as a mediating variable between a university's budget control system and team effectiveness. The research employs a quantitative approach, utilizing quantitative assessments to evaluate the impact of the budget control system on perceived collective efficacy and team effectiveness. Findings indicate that the budget control system is positively related to the perceived collective efficacy and team effectiveness. Besides, the perceived collective efficacy is associated with team effectiveness and significantly mediates between a budget control system and team effectiveness. This research aligns with existing literature highlighting the critical mediating role of perceived collective efficacy in the relationship between budget control systems and team effectiveness. By fostering an environment conducive to collective efficacy, organizations may better leverage team dynamics to enhance overall performance outcomes, paving the way for future research to explore these interconnections within diverse contexts further.

INTRODUCTION

Team effectiveness is crucial for organizations as it directly impacts organizational performance, productivity, and the successful execution of strategic initiatives. Effective teams can cohesively combine their skills and knowledge to achieve collective goals, enhancing overall organizational functionality (Herath & Rathnasiri, 2021; Shih & Putri, 2016). Team effectiveness—the interaction and collaboration among team members—has been identified as a significant determinant of team performance (Herath & Rathnasiri, 2021; Seftyandra & Arviansyah, 2020). When organizations harness the collective abilities of their teams effectively, they are better positioned to respond to challenges, innovate, and achieve



competitive advantages, particularly in dynamic environments like software development, where e-leadership can further bolster team dynamics and performance (Khalid et al., 2024). The connection between team effectiveness and budget control systems is a multifaceted one. A robust budget control system is essential for guiding financial resources towards productive endeavours and ensuring that teams have the necessary support to function optimally (Wuarlela et al., 2023). The relationship is bidirectional: effective teams can enhance the efficacy of budget control systems. When teams communicate effectively and understand their roles concerning the budget, they demonstrate greater accountability and responsible resource management, leading to improved organizational financial performance (Adhikari, 2020; Wuarlela et al., 2023). Conversely, well-defined budget control systems empower teams by delineating resource availability and expectations, which aid them in aligning their efforts with organizational goals (Wuarlela et al., 2023).

Moreover, effective team dynamics, characterized by good communication and interpersonal relationships, foster an environment where team members feel supported and engaged (Liao et al., 2022). Such an atmosphere motivates performance and enables teams to leverage diverse perspectives, which are critical in budget discussions and allocation strategies. When teams feel included and valued in financial planning, they exhibit a higher commitment to the organizational objectives, enhancing overall performance through improved adherence to budgetary constraints (Hess, 2018). This reciprocal influence highlights that organizations should build strong, effective teams while maintaining rigorous budget control systems to reinforce high performance mutually (Herath & Rathnasiri, 2021; Shih & Putri, 2016). In the current landscape of research concerning budget control systems and team effectiveness within private universities, significant gaps persist. These gaps merit attention in scholarly literature as they pose challenges to educational institutions' sustainable and effective operation. Firstly, the examination of the interplay between budget control systems and team effectiveness is under-researched, particularly in the context of private universities. Many studies have explored the role of organizational behaviors such as collective efficacy and leadership styles, on team performance. For instance, Akhtar et al. (2022) highlight the influence of authentic leadership on team leader



performance, suggesting that leadership is critical to enhancing team dynamics within educational settings. However, there is a conspicuous absence of studies directly addressing how specific financial management practices, such as budget control systems, influence team effectiveness. Integrating financial management frameworks with performance metrics could provide valuable insights into enhancing operational efficiency in private universities.

Furthermore, while collective efficacy has been explored across various disciplines—including public health and organisational studies (Guidetti et al., 2018; Rice et al., 2015)—its mediating role in budget control systems and team effectiveness remains largely unexplored. Rice et al. (2015) suggest that perceptions of collective readiness can motivate collective action, but how these perceptions reflect within educational budgets and resource allocation strategies is still ambiguous (Rice et al., 2015). It stands to reason that understanding collective efficacy as a mediating variable could offer critical insights into how budgeting practices influence team dynamics and efficacy beliefs. Moreover, research such as that of Guidetti et al. (2018) discusses teachers' work ability in relation to collective efficacy and self-efficacy, providing a helpful framework for understanding team performance outcomes. This perspective could be effectively applied to budget control systems in private universities, indicating an area ripe for academic inquiry. The exploration of how budgeting strategies might enhance the perception of collective efficacy among faculty could lead to improved outcomes in team effectiveness.

Additionally, it is crucial to recognise that existing studies often overlook the unique socio-cultural contexts within private universities, which might influence financial management practices and team dynamics. While collective efficacy is examined from various viewpoints, including psychological perspectives, scant literature aligns these concepts with budgeting mechanisms specific to the educational sector (Xie et al., 2022; Zumeta et al., 2016). Based on the explanation above, there is a need to investigate the role of perceived collective efficacy as a mediating variable between budget control systems and team effectiveness. Therefore, this study aims to examine the relationship between budget control systems and team effectiveness and determine the role of the perceived collective



efficacy as a mediating variable between budget control systems and team effectiveness.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Team effectiveness

Team effectiveness has emerged as a critical subject within organisational behaviour, defined broadly as the ability of a team to achieve its goals while maintaining positive relationships and satisfaction among its members. The concept of team effectiveness encompasses various dimensions, including performance outcomes, member satisfaction, and the dynamics of teamwork itself. For example, Courtright et al. (2017) highlight that both team charters and the conscientiousness of team members contribute significantly to team effectiveness, suggesting that these areas are critical inputs that work in tandem to influence overall outcomes. Understanding team effectiveness requires a multifaceted approach encompassing psychological contracts and individual team dynamics. Research by Schreuder et al. indicates that psychological alignment among team members can significantly impact performance outcomes, suggesting that congruence in team objectives is vital for fostering effective teamwork (Schreuder et al., 2019).

Furthermore, the implications of leadership styles, as noted by Hill and Bartol in the context of geographically dispersed teams, highlight how leadership can empower collaboration and shape team effectiveness (Hill & Bartol, 2015). Theoretical frameworks provide a robust foundation for understanding team effectiveness. Social interdependence theory posits that the degree of interdependence among task members is central to shaping interactions and enhancing performance. Shi et al. (2023) emphasise this perspective, arguing that task interdependence fosters collaboration, leading to improved team performance and positive interactions among members in contexts such as public-private partnerships. This view is supported by aspects of teamwork theories that recognise how individual roles contribute to collective outcomes, further underscoring the need for a cohesive team environment.

Budget Control System



The budget control system can be defined as a structured framework used by organisations to plan, monitor, and evaluate their financial performance against predetermined budgets. It encompasses the processes of creating a financial plan, regularly comparing actual expenditures to set budgetary goals, and allowing for necessary adjustments based on observed variances. This system is a vital management tool for enhancing organisational efficiency and accountability, facilitating operational planning and financial oversight (Elhamma, 2015; Lesorogol et al., 2024). Elhamma (2015) assert that budgetary control is central to management control, highlighting its pivotal role in steering organisational activities towards achieving financial performance metrics. The relationship between a budget control system and team effectiveness is complex. Effective budget control is critical for team performance, as it enhances accountability and promotes operational efficiency, which can lead to improved team cohesion and morale. When team members are aware of budgetary constraints and are engaged in budgeting, it fosters a sense of ownership and responsibility for their contributions to achieving budgetary targets (Kemunto & Cheluget, 2022; Kohlmeyer et al., 2014). Research indicates that participation in the budgeting process can positively influence organisational commitment and team performance (Kemunto & Cheluget, 2022).

Furthermore, effective budget controls ensure that teams have the necessary resources to execute their tasks efficiently while allowing for timely adjustments when deviations from the budget occur, thus enhancing the team's ability to respond to challenges (Pereira et al., 2019). However, challenges associated with budget control can also negatively impact team effectiveness. Studies point out that stringent budgetary controls may lead to dysfunctional behaviours among team members, such as "budget gaming," where individuals manipulate budget outcomes to present favourable results (Pattisahusiwa et al., 2019). It can undermine trust within the team and lead to conflicts, ultimately reducing overall effectiveness (Kemunto & Cheluget, 2022). Therefore, it is critical to strike a balance between sufficient budgetary oversight and flexibility that allows teams to adapt to changing circumstances while remaining aligned with organisational goals. Based on the above argumentation, we develop the first hypothesis.

H1: The budget control system is related to the perceived collective efficacy in a university.



H2: The budget control system is related to the team's effectiveness in a university.

Perceived Collective Efficacy

Perceived collective efficacy is defined as the shared belief among group members in their collective capabilities to achieve desired outcomes, fostering a sense of cohesion and mutual support (Mash et al., 2021; Miyao et al., 2022). This construct is rooted in social cognitive theory, which emphasises the importance of social interactions and confirmatory experiences in shaping efficacy beliefs (Hart et al., 2023). Research has shown that perceived collective efficacy can enhance community resilience, facilitate cooperation, and improve group dynamics (Elms et al., 2022; Mash et al., 2021). Specifically, it reflects a group's confidence in working together to address challenges and achieve shared goals, ultimately influencing various contexts, including educational settings and professional environments (Elms et al., 2022; J. Li et al., 2020). In organisational settings, perceived collective efficacy mediates between budget control systems and team effectiveness. A robust budget control system can provide clarity and structure, leading to enhanced trust and interdependence among team members, which, in turn, may bolster their belief in collective efficacy (J. Li et al., 2020). When teams perceive high collective efficacy, they are more likely to engage collaboratively in budgeting processes and utilize resources efficiently, resulting in improved team effectiveness (Elms et al., 2022; López-Gajardo et al., 2022). Studies indicate that collective efficacy significantly impacts team performance metrics, where higher perceptions of efficacy correlate with increased teamwork satisfaction and overall effectiveness (Elms et al., 2022; Marcos et al., 2022). Moreover, perceived collective efficacy mediates the motivational effects of budgetary processes by fostering constructive team dynamics and open communication channels, which are essential for effective collaboration (Li et al., 2020). It creates an enabling environment where team members are motivated to perform better due to their shared beliefs in their capabilities and those of their peers (Elms et al., 2022). Thus, enhancing perceived collective efficacy can lead to more significant team achievements, making it a crucial focal point for managers aiming to improve performance through structured budget control systems. Conceptual framework can be seen in Figure 1.



H3: Perceived collective efficacy is related to the team's effectiveness in the university.

H4: Perceived collective efficacy mediates the relationship between budget control systems and team effectiveness in a university setting.

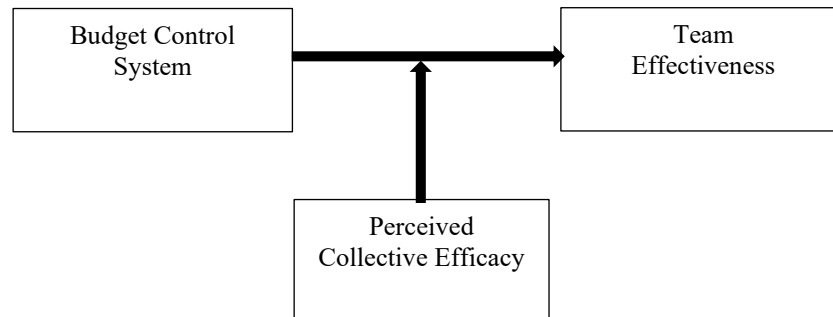


Figure 1. Conceptual Framework

RESEARCH METHOD

This study employed a private university academic department as the research object. The population of the survey is thirty-three departments. All departments were taken as samples of this study. The primary data is collected through a survey. The head of the department fills out the questionnaire. There are three types of variables: dependent variable, independent variable and mediating variable. The independent variable is the budget control system, which has eleven items developed by previous researchers (Hendri, 2006). Meanwhile, the perceived collective efficacy is adapted from items developed by experts (Salanova et al., 2003). Finally, the team effectiveness as a dependent variable was measured by six items adapted from (Kathuria & Davis, 2001). The respondents were requested to assess their team's effectiveness, budget control system and perceived collective efficacy using a seven-point Likert scale ranging from strongly disagree (1) to strongly agree (7). This study employed the SEM-PLS (smart-pls). Smart PLS serves as a powerful tool for handling complex models, particularly when dealing with small sample sizes and non-normal data (Li, 2022). Studies demonstrate that Smart PLS can effectively conduct analyses showcasing flexibility in different research contexts (Li, 2022). Furthermore, the software's ability to operate efficiently with layered and interlinked constructs makes it widely acknowledged for its capability in theory development



and validation in various fields, including psychology, marketing, and organizational studies (Iqbal et al., 2021; Linfang et al., 2021).

RESULTS AND DISCUSSION

Results

Demographic data

The demographic data of the respondents is demonstrated below. Regarding gender, females compose fourteen or 82.35%, while male respondents account for three respondents or 17.65%. In addition, most respondents are over 50 years old, comprising nine respondents (52.94%), followed by those aged 31 to 40 and 41 to 50, each consisting of four respondents (23.53%). The final respondent profile is characterised by educational level, with master's degree holders comprising twelve or 70.6%, followed by doctoral degree holders totalling five persons or 29.4%.

Measurement Model Assessment

The measurement model assessment in Partial Least Squares Structural Equation Modelling (PLS-SEM) using Smart PLS is a critical component that ensures the validity and reliability of constructs within a research model. In assessing the measurement model, researchers focus on the reliability and validity of the measured constructs. It involves evaluating indicators such as loading factors, composite reliability (CR), and average variance extracted (AVE) to confirm construct validity. Reliable indicators are crucial as they indicate the fidelity of measurement for each construct, where recommended thresholds for CR and AVE are typically set above 0.70 and 0.50, respectively (Haq et al., 2021; Umrani et al., 2017). Properly assessing these dimensions ensures that the constructs effectively represent their intended theoretical concepts.

The result of the convergent validity is demonstrated in Figure 1 (outer loading) and Table 1 (Cronbach's alpha, composite reliability, and average variance extracted). According to Figure 2, all items on the budget control system, the perceived collective efficacy and team effectiveness can have an adequate convergent validity, as they possess outer loading values exceeding 0.7. In addition, all variables exhibit a Cronbach's alpha exceeding 0.7 and a composite reliability value surpassing 0.7.



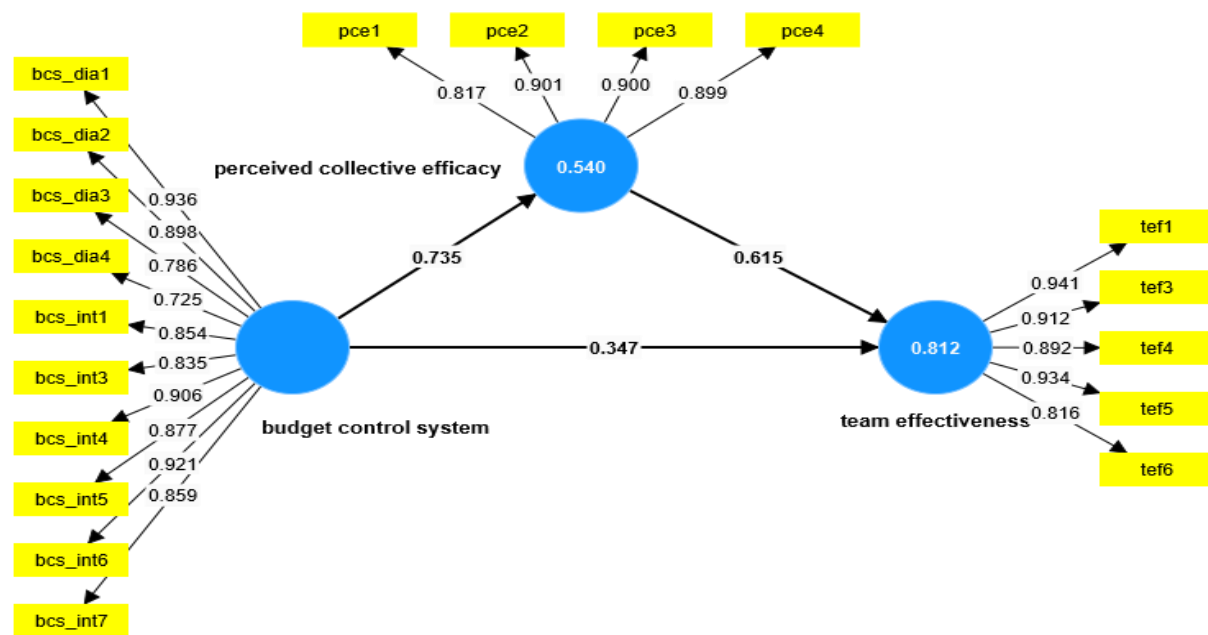


Figure 2. Measurement model

The budget control system, the perceived collective efficacy and team effectiveness are valid. Concurrently, the AVE values for all variables exceeded 0.5, indicating that all variables satisfied the criteria (see Table 1).

Table 1. Convergent validity

	Cronbach's alpha	Composite reliability	Average variance extracted
Budget control system	0.961	0.966	0.743
perceived collective efficacy	0.902	0.932	0.774
team effectiveness	0.941	0.955	0.810

The second assessment for the measurement model is discriminant validity. Discriminant validity is a critical construct in evaluating measurement models, particularly in the context of Partial Least Squares Structural Equation Modelling (PLS-SEM). It assesses whether theoretically distinct constructs are, in fact, statistically different from each other. Several methodologies are employed in PLS-SEM to assess discriminant validity, each providing unique insights into the model's robustness. One primary approach to evaluate discriminant validity in PLS is the Fornell-Larcker criterion. According to Henseler et al. (2014), this criterion posits that the Average Variance Extracted (AVE) square root for each construct should exceed the correlations with other constructs under evaluation. The result of the



discriminant validity using the Fornell-Lacker is presented in Table 2 below, which indicates that the discriminant validity is achieved.

Table 2. Discriminant validity

	Budget control system	perceived collective efficacy	team effectiveness
Budget control system	0.862		
perceived collective efficacy	0.735	0.880	
team effectiveness	0.799	0.870	0.900

Structural Model Assessment

Structural model assessment follows the evaluation of the outer model. Here, the relationships between the latent constructs are analysed, often employing techniques such as bootstrapping to derive significance levels of the path coefficients (Bouteraa, 2024; Ibeabuchi et al., 2024; Shanmugapriya & Subramanian, 2015). This phase helps in testing hypotheses formulated in the research, determining how well the model fits the data, and assessing the predictive power of the structural model through indices like R-squared (R^2) and Q-squared (Q^2) (Bouteraa, 2024; Ibeabuchi et al., 2024; Naseem & Ali, 2023). This evaluation reinforces the robustness of the overall model by confirming how well the independent variables predict the dependent variables.

Table 3. Hypothesis test

	Original sample	T statistics	P values	Decision
Budget control system -> perceived collective efficacy	0.735	10.288	0.000	H1: Supported
Budget control system -> team effectiveness	0.347	2.075	0.038	H2: Supported
perceived collective efficacy -> team effectiveness	0.615	3.901	0.000	H3: Supported
budget control system -> perceived collective efficacy -> team effectiveness	0.452	3.528	0.000	H4: Supported

The result of the hypothesis testing is shown in Table 3. The effect of the budget control system on the perceived collective efficacy is positively significant at 1%



($\beta=0.735$, $p\text{-value}=0.000$); therefore, the first hypothesis is accepted. In addition, the relationship between a budget control system and team effectiveness is also supported (H2 supported) at 5% ($\beta=0.347$, $p\text{-value}=0.038$). Hence, the influence of the perceived collective efficacy on team effectiveness is accepted at 1% ($\beta=0.615$, $p\text{-value}=0.000$). Finally, the role of the perceived collective efficacy as a mediating variable between a budget control system and team effectiveness is supported at 1% ($\beta=0.452$, $p\text{-value}=0.000$).

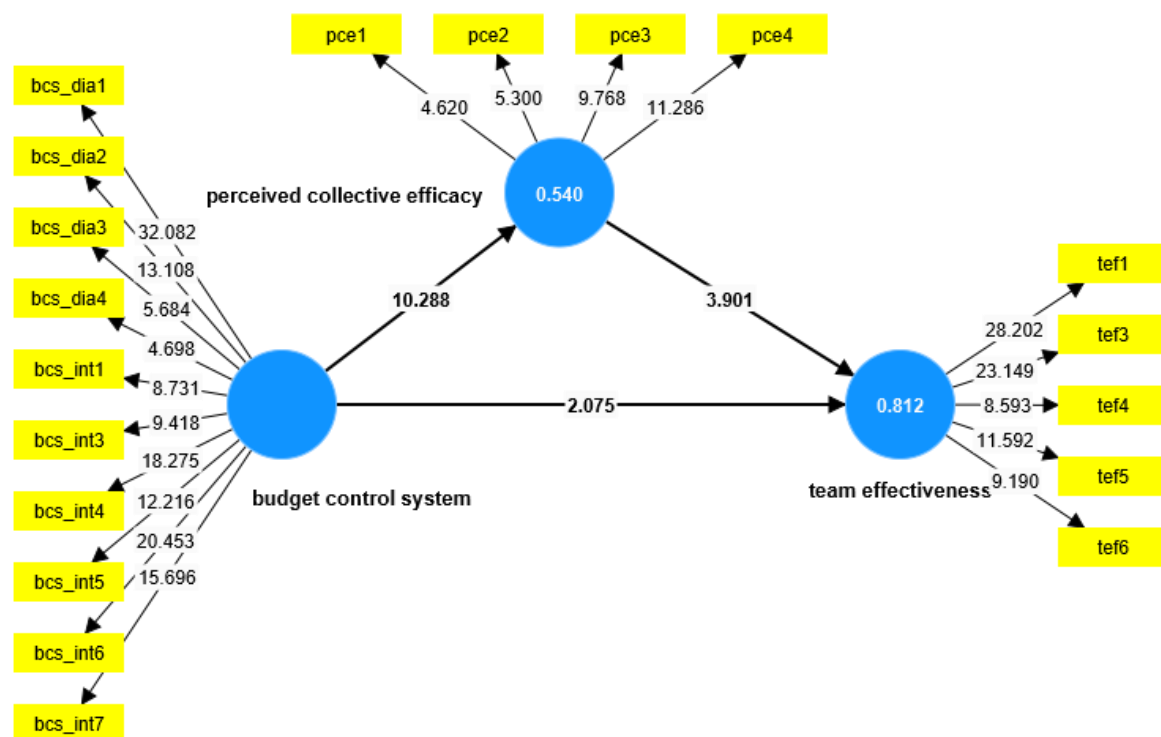


Figure 3. Structural model

Discussion

Budget control system and perceived collective efficacy

The relationship between budget control systems and perceived collective efficacy has emerged as a focal point in organisational research, particularly in understanding how these factors influence performance and governance within institutions. Budget control systems, which encompass the planning, implementing, and monitoring budgetary processes, are crucial to an organisation's overall governance and efficacy. A well-structured internal control system enhances accountability and decreases instances of budgetary abuse, thereby fostering a



culture of transparency and reliability within the organisation (Saraswati & Setiyawati, 2021). The effective implementation of these systems is crucial for achieving organizational goals, particularly in the context of small and medium-sized enterprises (SMEs), where the perception of the value of budget controls significantly enhances their operational performance (Matsoso et al., 2021). Furthermore, perceived collective efficacy—the shared belief among group members in their capability to perform actions required to achieve desired outcomes—plays a pivotal role in budget control systems. Research suggests that collective efficacy can foster motivational commitment and resilience within groups, which, in turn, enhances the successful implementation of budgetary procedures (Bandura, 2000). Collective efficacy is interlinked with organisational governance; organisations characterised by high levels of collective efficacy tend to have better alignment and responsiveness to budgetary goals, impacting overall performance metrics (Goddard, 2001). Moreover, various studies affirm a strong correlation between budget performance and collective efficacy. When stakeholders believe in their collective capacity to navigate economic uncertainties, they are more likely to engage directly with budgeting processes, resulting in improved financial outcomes and organisational performance (Lesorogol et al., 2024). Conversely, low perceived collective efficacy can lead to scepticism about the budgetary processes, diminishing engagement and accountability among team members (Jurado et al., 2019). This relationship illustrates the importance of fostering an environment that enhances collective efficacy, as it can mitigate challenges associated with budget control failures and uncertainty in dynamic environments, such as financial crises (Khalifeh & Sivabalan, 2014).

Budget control system and team effectiveness

The relationship between budget control systems and team effectiveness is a critical area of exploration in organisational research, particularly due to the dual role that budgetary practices can play in fostering performance control and team collaboration. As integral components of management control systems (MCS), budget control systems significantly influence team dynamics and effectiveness by delineating the framework within which teams operate. These systems often create a balance between flexibility and control, which is necessary for enhancing team effectiveness within organisations (Cools et al., 2017; Curtis & Sweeney, 2019).



Teams operating under structured budgetary frameworks may exhibit higher levels of effectiveness due to enhanced clarity in roles and objectives, promoting a shared understanding, which is crucial for team performance. This notion is reinforced by research highlighting the importance of shared mental models—that is, a collective understanding among team members about goals, roles, and tasks—as a contributor to team success (Bossche et al., 2010; Majeed et al., 2023; Tannenbaum & Greulich, 2022). Effective use of budgetary practices fosters this shared understanding by clarifying expectations and performance metrics, enabling team members to engage in synchronized actions towards common objectives (Cools et al., 2017; Tannenbaum & Greulich, 2022) .

Perceived collective efficacy and team effectiveness

The relationship between perceived collective efficacy and team effectiveness has garnered significant attention in recent research, illustrating its critical role in enhancing team performance across various contexts. Collective efficacy refers to a group's shared belief in its ability to organise and execute tasks successfully, influencing motivation, effort, and performance outcomes (Bruton et al., 2014; Huang et al., 2017; W. Li, 2024). Studies have consistently found that high levels of perceived collective efficacy correlate positively with team effectiveness, with one core mechanism through which this relationship operates being enhanced motivation and confidence among team members (Elms et al., 2022; Hochil et al., 2012). Research indicates that teams exhibiting strong collective efficacy can navigate challenges more effectively as members believe in their collective capacity to achieve set objectives. This belief fosters a positive motivational atmosphere that encourages persistence and resilience when facing difficulties. For example, collective efficacy has been shown to mediate the relationship between transformational leadership and team performance, emphasising the impact of leadership on fostering an empowering environment (Bradford, 2011; Chou et al., 2013). Such insights align with Bandura's social cognitive theory, which posits that confidence in group capabilities enhances collective effort (Li et al., 2020).

Perceived collective efficacy as a mediating variable between the Budget control system and team effectiveness



The relationship between budget control systems and team effectiveness is increasingly recognised as pivotal in organisational management. One key aspect facilitating this relationship is perceived collective efficacy, a mediating variable. Perceived collective efficacy refers to a group's shared belief in its capabilities to organise and execute tasks effectively to achieve certain goals, influencing team dynamics and performance outcomes. Research indicates that teams with a strong sense of collective efficacy are more likely to navigate budget constraints effectively and utilise budgetary controls to enhance performance. Collective efficacy enhances team members' confidence in their ability to meet budgetary targets and fosters a collaborative environment where individuals work towards common objectives, ultimately leading to improved effectiveness (Hipp, 2016). This synergy between budget control mechanisms and collective efficacy is supported by studies that link successful project outcomes with effective budget management and team dynamics (Laitinen et al., 2016; Manata et al., 2021).

Moreover, budget control systems rely on teamwork and collective efforts to enforce compliance and optimise resource allocation. When team members believe in their collective effectiveness, they are more likely to engage proactively in budget-related discussions and decision-making processes (Jawad et al., 2018). Studies suggest that a perceived control over budgetary processes can empower teams, resulting in better financial performance and accountability (Lesorogol et al., 2024). The presence of clear budget targets is essential, as it has been demonstrated to correlate with higher levels of accountability and performance outcomes within teams (Simanjuntak et al., 2023). Conversely, when collective efficacy is low, teams may struggle with disorganisation and inadequate communication regarding budgetary issues, leading to decreased effectiveness (Hipp & Wickes, 2018). The interplay between perceived collective efficacy and budget control systems underscores the importance of fostering an environment where team members can collaboratively operate within the budgetary framework, thus driving performance outcomes (Hipp, 2016).

CONCLUSION

Investigating perceived collective efficacy as a mediating variable between budget control systems and team effectiveness reveals significant insights into team



dynamics. Perceived collective efficacy is a powerful influencing factor, bridging the gap between structured budgetary frameworks and team performance. Teams characterised by high collective efficacy demonstrate greater psychological investment in tasks, which correlates with enhanced participation and proactive engagement in achieving team goals. This finding aligns with research emphasising that collective efficacy fosters an environment conducive to effective teamwork and partially mediates the relationship between communal beliefs and action-oriented norms among team members. Moreover, the impact of a robust budget control system on team effectiveness can be amplified when there is a shared belief in the team's capabilities. Such systems provide a structured approach that underscores accountability and resource allocation; however, these structures may not fully optimise team output without the underpinning belief in collective efficacy. The interplay between budgetary control and collective efficacy is crucial, as evidenced by studies highlighting the significance of collective efficacy in organisational contexts. Teams with a strong sense of collective efficacy are better positioned to navigate the complexities of task management and conflict resolution. In addition, the collective belief among team members that they can achieve desired outcomes enhances cooperation and collaboration—integral components of effective teamwork. The synergy gained from collective efficacy manifests as collective problem-solving abilities and increased resilience in the face of challenges, reinforcing the principles laid out in budget control systems. Ultimately, harnessing perceived collective efficacy optimises the implementation of budgetary policies and contributes to a cohesive team environment where effectiveness can flourish.

Integrating perceived collective efficacy as a mediating variable between budget control systems and team effectiveness presents several theoretical implications. It suggests that organisations can achieve higher performance outcomes by investing in their control systems while promoting an environment that cultivates collective efficacy. The interplay between the budget control systems, the perceived collective efficacy, and team effectiveness underscores an important narrative for organisational practice. Ensuring clear objectives, fostering collective capability, and maintaining robust internal controls can significantly enhance organisational team performance and accountability. This integrated approach will likely yield sustainable organisational success in a dynamic and increasingly complex operating



environment. The exploration of perceived collective efficacy as a mediating variable between budget control systems and team effectiveness is fraught with limitations. The variability in individual perceptions, contextual influences, and the subjective nature of measurements necessitate caution in interpreting results. Future research should address these limitations by employing more robust methodologies, including longitudinal designs and multi-rater assessments, to capture the complex interplay between these constructs accurately.

ACKNOWLEDGEMENT

I want to express my sincere gratitude to the Rector of Universitas Ekasakti, and Dean of the Faculty of Economics for the continuous support, encouragement, and facilitation provided throughout the process of this publication.

REFERENCES

- Adhikari, P. R. (2020). Impact of Teamwork on Organizational Productivity in Nepalese Commercial Banks. *Management Dynamics*, 23(2), 75–84. <https://doi.org/10.3126/md.v23i2.35810>
- Akhtar, M. W., Aslam, M. K., Huo, C., Akbar, M., Afzal, M. U., & Rafiq, M. (2022). The Interplay of Authentic Leadership and Social Capital on Team Leader Performance in Public and Private Sector Universities. *Kybernetes*, 52(6), 2045–2060. <https://doi.org/10.1108/k-06-2021-0446>
- Bandura, A. (2000). Exercise of Human Agency Through Collective Efficacy. *Current Directions in Psychological Science*, 9(3), 75–78. <https://doi.org/10.1111/1467-8721.00064>
- Bossche, P. V. d., Gijssels, W., Segers, M., Woltjer, G., & Kirschner, P. A. (2010). Team Learning: Building Shared Mental Models. *Instructional Science*, 39(3), 283–301. <https://doi.org/10.1007/s11251-010-9128-3>
- Bouteraa, M. (2024). Does Consumer Religiosity Matter for Green Banking Adoption? Evidence From a Muslim-Majority Market. *Journal of Islamic Marketing*, 15(7), 1807–1823. <https://doi.org/10.1108/jima-02-2023-0049>
- Bradford, S. (2011). Leadership, Collective Efficacy and Team Performance. *International Journal of Web-Based Learning and Teaching Technologies*, 6(3), 35–45. <https://doi.org/10.4018/jwlts.2011070103>
- Bruton, A. M., Mellalieu, S. D., & Shearer, D. A. (2014). Observation Interventions as a Means to Manipulate Collective Efficacy in Groups. *Journal of Sport and Exercise Psychology*, 36(1), 27–39. <https://doi.org/10.1123/jsep.2013-0058>
- Chou, H.-W., Lin, Y., Chang, H.-H., & Chuang, W.-W. (2013). Transformational Leadership and Team Performance. *Sage Open*, 3(3). <https://doi.org/10.1177/2158244013497027>
- Cools, M., Stouthuysen, K., & Abbeele, A. V. d. (2017). Management Control for Stimulating Different Types of Creativity: The Role of Budgets. *Journal of*



- Management Accounting Research*, 29(3), 1–21. <https://doi.org/10.2308/jmar-51789>
- Courtright, S. H., McCormick, B. W., Mistry, S., & Wang, J. (2017). Quality Charters or Quality Members? A Control Theory Perspective on Team Charters and Team Performance. *Journal of Applied Psychology*, 102(10), 1462–1470. <https://doi.org/10.1037/apl0000229>
- Curtis, E. M., & Sweeney, B. (2019). Flexibility and Control in Managing Collaborative and in-House NPD. *Journal of Accounting & Organizational Change*, 15(1), 30–57. <https://doi.org/10.1108/jaoc-07-2017-0057>
- Elhamma, A. (2015). The Relationship Between Budgetary Evaluation, Firm Size and Performance. *The Journal of Management Development*, 34(8), 973–986. <https://doi.org/10.1108/jmd-06-2014-0053>
- Elms, A. K., Gill, H., & González-Morales, M. G. (2022). Confidence Is Key: Collective Efficacy, Team Processes, and Team Effectiveness. *Small Group Research*, 54(2), 191–218. <https://doi.org/10.1177/10464964221104218>
- Goddard, R. D. (2001). Collective Efficacy: A Neglected Construct in the Study of Schools and Student Achievement. *Journal of Educational Psychology*, 93(3), 467–476. <https://doi.org/10.1037/0022-0663.93.3.467>
- Guidetti, G., Viotti, S., Bruno, A., & Converso, D. (2018). Teachers' Work Ability: A Study of Relationships Between Collective Efficacy and Self-Efficacy Beliefs. *Psychology Research and Behavior Management*, 11, 197–206. <https://doi.org/10.2147/prbm.s157850>
- Haq, W., Raza, S. H., Said, F., & Ali, M. (2021). Covid-19 and Lockdown: Socio-Psychological Effects in Pakistan. <https://doi.org/10.3390/ecerph-3-09048>
- Hart, P. S., Feldman, L., Choi, S., Zhang, A. L., & Hegland, A. (2023). The Influence of Flooding Imagery and Party Cues on Perceived Threat, Collective Efficacy, and Intentions for Political Action to Address Climate Change. *Science Communication*, 45(5), 627–664. <https://doi.org/10.1177/10755470231199972>
- Hendri, J. (2006). Management control systems and strategy: a resource-based perspective. *Accounting, Organizations and Society*, 31, 529–558.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2014). A New Criterion for Assessing Discriminant Validity in Variance-Based Structural Equation Modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- Herath, H. P. M. C. T., & Rathnasiri, R. A. (2021). Impact of Team Effectiveness on Organizational Performance: Special Reference to Apparel Manufacturing Firms in North Western Province. *Wayamba Journal of Management*, 12(2), 45. <https://doi.org/10.4038/wjm.v12i2.7531>
- Hess, J. P. (2018). Autonomous Team Members' Expectations for Top-Leader Involvement. *Team Performance Management*, 24(5/6), 283–297. <https://doi.org/10.1108/tpm-10-2017-0060>
- Hill, N. S., & Bartol, K. M. (2015). Empowering Leadership and Effective



- Collaboration in Geographically Dispersed Teams. *Personnel Psychology*, 69(1), 159–198. <https://doi.org/10.1111/peps.12108>
- Hipp, J. R. (2016). Collective Efficacy: How Is It Conceptualized, How Is It Measured, and Does It Really Matter for Understanding Perceived Neighborhood Crime and Disorder? *Journal of Criminal Justice*, 46, 32–44. <https://doi.org/10.1016/j.jcrimjus.2016.02.016>
- Hipp, J. R., & Wickes, R. (2018). Problems, Perceptions and Actions: An Interdependent Process for Generating Informal Social Control. *Social Science Research*, 73, 107–125. <https://doi.org/10.1016/j.ssresearch.2018.03.015>
- Hochiil, Y., MizunoO, M., Nakayama, T., Kanneko, I., & Kitamura, K. (2012). Relationship Between Collective Efficacy and Contextual Performance Among University Athletes in Japan. *Work*, 41(S1), 5759–5761. <https://doi.org/10.3233/wor-2012-0942-5759>
- Huang, C.-Y., Huang, J., & Chang, Y. (2017). Team Goal Orientation Composition, Team Efficacy, and Team Performance: The Separate Roles of Team Leader and Members. *Journal of Management & Organization*, 25(6), 825–843. <https://doi.org/10.1017/jmo.2016.62>
- Ibeabuchi, C., Ehido, A., Fawehinmi, O., & Aigbogun, O. (2024). Determinants of Purchase Intention Towards Halalcertified Cosmetic Products Among nonMuslims. *Journal of Islamic Marketing*, 15(12), 3778–3803. <https://doi.org/10.1108/jima-09-2022-0255>
- Iqbal, S., Martins, J. M., Mata, M. N., Naz, S., Akhtar, S., & Abreu, A. (2021). Linking Entrepreneurial Orientation With Innovation Performance in SMEs; The Role of Organizational Commitment and Transformational Leadership Using Smart PLS-SEM. *Sustainability*, 13(8), 4361. <https://doi.org/10.3390/su13084361>
- Jawad, S., Ledwith, A., & Panahifar, F. (2018). Enablers and Barriers to the Successful Implementation of Project Control Systems in the Petroleum and Chemical Industry. *International Journal of Engineering Business Management*, 10. <https://doi.org/10.1177/1847979017751834>
- Jurado, M. del M. M., Fuentes, M. del C. P., Atria, L. F., Ruiz, N. F. O., & Linares, J. J. G. (2019). Burnout, Perceived Efficacy, and Job Satisfaction: Perception of the Educational Context in High School Teachers. *Biomed Research International*, 2019, 1–10. <https://doi.org/10.1155/2019/1021408>
- Kathuria, R., & Davis, E. B. (2001). Quality and work force management practices: the managerial performance implication. *Production and Operations Management*, 10, 460–477.
- Kemunto, D., & Cheluget, J. (2022). Budgetary Controls and Financial Performance of Micro Finance Institutions (MFIs) in Kenya. *Journal of Finance and Accounting*, 6(4), 123–145. <https://doi.org/10.53819/81018102t6045>
- Khalid, I., Ullah, S., Hasnain, R., & Ali, N. (2024). The Role of E-Leadership on Sustainable Employee Performance With the Mediating Effect of Perceived Team Dynamics and Moderating Effect of Organizational Support. *CRSSS*, 2(2), 37–50. <https://doi.org/10.59075/xa66hh89>



- Khalifeh, C. J., & Sivabalan, P. (2014). An Experimental Study on the Effect of Budget Information on Balanced Scorecard Preparer Individual Learning. *Australian Accounting Review*, 24(1), 39–52. <https://doi.org/10.1111/auar.12017>
- Kohlmeyer, J. M., Mahenthiran, S., Parker, R. J., & Sincich, T. (2014). *Leadership, Budget Participation, Budgetary Fairness, and Organizational Commitment*. 95–118. <https://doi.org/10.1108/s1475-148820140000017003>
- Laitinen, E. K., Lämsiluoto, A., & Salonen, S. (2016). Interactive Budgeting, Product Innovation, and Firm Performance: Empirical Evidence From Finnish Firms. *Journal of Management Control*, 27(4), 293–322. <https://doi.org/10.1007/s00187-016-0237-2>
- Lesorogol, N., Achimba, C., & Opondo, F. (2024). Budget Control on Capital Project Delivery in Samburu County Government. *International Journal of Finance and Accounting*, 9(4), 1–16. <https://doi.org/10.47604/ijfa.2841>
- Li, J., Jia, L., Cai, Y., Kwan, H. K., & You, S. (2020). Employee–Organization Relationships and Team Performance: Role of Team Collective Efficacy. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.00206>
- Li, W. (2024). Examining the Reliability and Validity of Measuring Scales Related to Informatization and Instructional Leadership Using the PLS-SEM Approach. *Humanities and Social Sciences Letters*, 12(3), 461–480. <https://doi.org/10.18488/73.v12i3.3789>
- Li, Y. (2022). Design Visual Elements and Brand-Based Equity: Mediating Role of Green Concept. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.888164>
- Liao, G., Jiao, Z., & Yin, J. (2022). Effect of Organizational Socialization of New Employees on Team Innovation Performance: A Cross-Level Model. *Psychology Research and Behavior Management*, Volume 15, 1017–1031. <https://doi.org/10.2147/prbm.s359773>
- Linfang, Z., Khalid, R., Raza, M., Chanrawang, N., & Parveen, R. (2021). The Impact of Psychological Factors on Women Entrepreneurial Inclination: Mediating Role of Self-Leadership. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.796272>
- López-Gajardo, M. Á., García-Calvo, T., González-Ponce, I., García, J. D., & Marcos, F. M. L. (2022). Cohesion and Collective Efficacy as Antecedents and Team Performance as an Outcome of Team Resilience in Team Sports. *International Journal of Sports Science & Coaching*, 18(6), 2239–2250. <https://doi.org/10.1177/17479541221129198>
- Majeed, M., Irshad, M., Khan, I. U., & Saeed, I. (2023). The Impact of Team Mindfulness on Project Team Performance: The Moderating Role of Effective Team Leadership. *Project Management Journal*, 54(2), 162–178. <https://doi.org/10.1177/87569728221140807>
- Manata, B., Miller, V. D., Mollaoglu, S., & Garcia, A. J. (2021). Documenting the Interactive Effects of Project Manager and Team-Level Communication Behaviors in Integrated Project Delivery Teams. *Project Management Journal*,



- 53(1), 33–48. <https://doi.org/10.1177/87569728211047296>
- Marcos, F. M. L., Filho, E., López-Gajardo, M. Á., García-Calvo, T., & González-Ponce, I. (2022). The Relationship Among Intra-group Communication, Transactive Memory Systems, Collective Efficacy and Team Performance: A Structural Equation Model Analysis With Elite Footballers. *European Journal of Sport Science*, 23(4), 599–606. <https://doi.org/10.1080/17461391.2022.2049373>
- Mash, H. B. H., Fullerton, C. S., Morganstein, J. C., Vance, M. C., Wang, L., Liu, A., Mullins-Hussain, B., & Ursano, R. J. (2021). Longitudinal Study of Hurricane Preparedness Behaviors: Influence of Collective Efficacy. *Disaster Medicine and Public Health Preparedness*, 16(3), 1046–1052. <https://doi.org/10.1017/dmp.2020.504>
- Matsoso, M. L., Nyathi, M., & Nakpodia, F. (2021). An Assessment of Budgeting and Budgetary Controls Among Small and Medium-Sized Enterprises: Evidence From a Developing Economy. *Journal of Accounting in Emerging Economies*, 11(4), 552–577. <https://doi.org/10.1108/jae-04-2020-0082>
- Miyao, M., Ozaki, H., Tobia, S., Petruzzelli, A. M., & Frattini, F. (2022). The Role of Open Innovation Hubs and Perceived Collective Efficacy on Individual Behaviour in Open Innovation Projects. *Creativity and Innovation Management*, 31(2), 294–305. <https://doi.org/10.1111/caim.12494>
- Naseem, K., & Ali, M. (2023). Impact of Work Demand Constraints on Psychological Distress Through Workplace Bullying and Personality Traits: A Moderated-Mediation Model. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.965835>
- Pattisahusiwa, S., Musvianti, M., & Lahaya, I. A. (2019). *Is Inefficiency Still a Major Problem in Regional Spending and How to Overcome It? (Case Study of East Kalimantan Province)*. <https://doi.org/10.2991/teams-18.2019.38>
- Pereira, M. M., Coelho, L. L. G. de A., Silva, G. L. d., & Cunha, Y. S. A. (2019). Application of Statistical Analysis to Improve Time Management of a Process Modeling Project. *Gestão & Produção*, 26(4). <https://doi.org/10.1590/0104-530x3945-19>
- Rice, L. J., Hughes, B., Briggs, V., Delmoor, E., Jefferson, M., Johnson, J., & Halbert, C. H. (2015). Perceived Efficacy and Control for Neighborhood Change: The Cross-Cutting Role of Collective Efficacy. *Journal of Racial and Ethnic Health Disparities*, 3(4), 667–675. <https://doi.org/10.1007/s40615-015-0185-9>
- Salanova, M., Liorens, S., Cifre, E., Martinez, I. M., & Schaufeli, W. B. (2003). Perceived collective efficacy, subjective well-being and task performance among electronic work groups: an experimental study. *Small Group Research*, 34, 43–73.
- Saraswati, A. E., & Setiyawati, H. (2021). Factors Affecting the Control of Budget Abuse. *Journal of Contemporary Accounting*, 3(2), 88–97. <https://doi.org/10.20885/jca.vol3.iss2.art4>
- Schreuder, F., Schalk, R., & Batistič, S. (2019). Goal Congruence in Teams and Performance: The Role of (Shared) Psychological Contract Fulfilment. *Journal of*



- Management & Organization*, 29(1), 86–102.
<https://doi.org/10.1017/jmo.2019.52>
- Seftyandra, F., & Arviansyah, A. (2020). Key Indicators Influencing Team Effectiveness in Project-Based Team. *Kne Social Sciences*.
<https://doi.org/10.18502/kss.v4i3.6395>
- Shanmugapriya, S., & Subramanian, K. R. (2015). Structural Equation Model to Investigate the Factors Influencing Quality Performance in Indian Construction Projects. *Sadhana*, 40(6), 1975–1987. <https://doi.org/10.1007/s12046-015-0421-3>
- Shi, S., Zhao, F., Zhang, H., Li, H., & Ye, X. (2023). Research on the Influences of Task Interdependence on Team Performance in the Context of the Leader–Member Exchange Differentiation in the Public–Private Partnership Projects. *Sustainability*, 15(18), 13429. <https://doi.org/10.3390/su151813429>
- Shih, C. P., & Putri, D. U. (2016). Measuring the Effect of Team Characteristics, Team Effectiveness on Organizational Performance, Organizational Survival and Competitiveness. *International Journal of Asian Business and Information Management*, 7(2), 1–14. <https://doi.org/10.4018/ijabim.2016040101>
- Simanjuntak, A., Siahaan, S. B., Situmorang, D. R., & Elisabeth, D. M. (2023). Factors Affecting Accountability Government Institution Performance. *Accounting Analysis Journal*, 12(2), 112–122.
<https://doi.org/10.15294/aaaj.v12i2.61983>
- Tannenbaum, S. I., & Greulich, P. E. (2022). The Debrief Imperative: Building Teaming Competencies and Team Effectiveness. *BMJ Quality & Safety*, 32(3), 125–128. <https://doi.org/10.1136/bmjqs-2022-015259>
- Umrani, W. A., Shah, S. M. M., Memon, P. A., & Samo, A. H. (2017). Organizational Culture and Business Performance: An Empirical Investigation in the Pakistani Context. *International Journal of Academic Research in Economics and Management Sciences*, 6(1). <https://doi.org/10.6007/ijarems/v6-i1/2575>
- Wuarlela, Y. K., Assih, P., & Parawiyati, P. (2023). The Effect of Government Internal Control Systems and Organizational Commitment on Organizational Performance Through Work Accountability as an Intervening Variable (Case Study on the Organization of the Regional Apparatus of the Tanimbar Islands Regency). *Journal of Economics Finance and Management Studies*, 06(06).
<https://doi.org/10.47191/jefms/v6-i6-07>
- Xie, Z., Wu, R., Liu, H., & Liu, J. (2022). How Does Teacher-Perceived Principal Leadership Affect Teacher Self-Efficacy Between Different Teaching Experiences Through Collaboration in China? A Multilevel Structural Equation Model Analysis Based on Threshold. *Frontiers in Psychology*, 13.
<https://doi.org/10.3389/fpsyg.2022.933838>
- Zumeta, L., Oriol, X., Telletxea, S., Amutio, A., & Basabe, N. (2016). Collective Efficacy in Sports and Physical Activities: Perceived Emotional Synchrony and Shared Flow. *Frontiers in Psychology*, 6.
<https://doi.org/10.3389/fpsyg.2015.01960>

