
Driving Service Innovation to Increase Economic Performance of PT Reksa Multi Usaha : The Impact of Innovative Work Behavior on Performance Among Train Attendants

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Abstract:

This study investigates the influence of innovative work behavior (IWB) on service innovation performance (SIP) within the transportation service sector. Conducted at PT Reksa Multi Usaha (RMU), a subsidiary of PT Kereta Api Indonesia, the research focuses on the Yogyakarta branch, engaging 58 train attendants as respondents. Primary data were collected using an online questionnaire and analyzed through the Covariance-Based Structural Equation Model (CB-SEM) using LISREL 8.80. The study identifies that IWB—comprising idea generation, idea promotion, and idea realization—positively and significantly affects SIP. High coefficients for each IWB dimension underscore the pivotal role of employees' innovative actions in enhancing service quality and fostering service innovation. The findings emphasize the critical importance of empowering frontline employees, such as train attendants, to actively contribute to service innovation by leveraging their insights from customer interactions. This research provides valuable insights for organizations seeking competitiveness in Indonesia's rapidly growing transportation sector. It highlights the necessity of fostering an innovative culture to support continuous service improvement and meet the evolving demands of a dynamic market.

Keywords: *Idea Generation, Idea Promotion, Idea Realization, Innovative Work Behavior, Service Innovation Performance, Train, Train Attendants, Transportation Service Sector*

Submitted: December 12 2024, Accepted: December 19, 2024, Published: January 30, 2025

1. Introduction

The service sector plays a crucial role in supporting Indonesia's economy. This is underscored in Government Regulation (PP) No. 14 of 2015 on the National Industrial Development Master Plan (RIPIN) for 2015–2035, which identifies the service industry as one of the key supporting sectors in building the national economy. Indonesia's Minister of Finance, Sri Mulyani Indrawati, noted that the service industry in various countries, including Indonesia, is experiencing rapid growth in the current digital era. This growth is marked by the emergence of numerous services leveraging digital technology across various sectors to enhance productivity (Antaranews, 2023).

Based on Indonesia's economic structure, the service sector dominates the gross domestic product (GDP), contributing 54.4%, significantly outpacing the manufacturing and agriculture sectors, contributing 20.5% and 12.3%, respectively

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(Kompas, 2023). In terms of business fields, the transportation and warehousing sector recorded the highest GDP growth at 13.96% annually (Central Statistic Agency, 2024). This growth surpasses that of other sectors, including agriculture (1.30%), mining and quarrying (6.12%), manufacturing (4.64%), trade and repair (4.85%), and other business fields (5.33%).

The transportation service sector is integral to national economic advancement, facilitating growth by connecting markets, producers, and consumers. A well-developed transportation infrastructure enables the efficient movement of goods and services between regions, creating opportunities for small and medium enterprises to access larger markets, thereby boosting sales and revenue (Mediaindonesia, 2023). Over the last decade, the Indonesian government has continuously developed and revitalized transportation infrastructure, encompassing land, air, and sea transportation. These initiatives aim to make transportation a significant contributor by linking Indonesia's vast regions and fostering new economic hubs that drive national economic growth (Dephub, 2024).

However, the rapid growth of the transportation service sector also presents challenges for companies operating in this space, requiring them to continuously innovate to meet their customers' growing needs and expectations (Lusch & Nambisan, 2015). Service innovation is critical for maintaining corporate sustainability, as it can improve service quality, enhance customer experience, and boost overall business performance (Chapman et al., 2003). Service innovation has sometimes proven even more effective than product innovation (Chesbrough, 2011).

External pressures, such as regulations, competition, and customer demands, compel companies to prioritize the innovative behavior of their employees, particularly those on the front lines. These employees are pivotal in creating and implementing service innovations (Ordanini & Parasuraman, 2011; Vargo & Lusch, 2016). Frontline employees possess valuable insights into customer needs and are familiar with comparable services provided by competitors (Melton & Hartline, 2013). This positions them to address customer demands effectively through innovative behaviors. Moreover, employees who voluntarily engage in innovative behaviors can effectively introduce new ideas to the company, assist customers in resolving issues, and share innovative service concepts (Bhutto et al., 2021). Thus, it is essential to explore how frontline employees act as key drivers of service innovation. Through the innovative behavior of these employees, companies can safeguard against competitive failures and significantly enhance their service innovation performance (Umrani et al., 2020).

This study focuses on rail transportation as the primary mode of transportation for several reasons. First, railways have a long history as one of Indonesia's essential transportation modes. Established during the colonial period in 1864, railway networks have expanded significantly, particularly in Java and Sumatra. Over time, railways have evolved from being primarily used for freight transport to becoming a key mode of passenger transport. This transformation underscores the railway's symbolic importance in Indonesia's transportation history (Antaranews, 2024).

Second, railways are vital in providing efficient and affordable mass transportation in Indonesia. According to data from the Central Statistics Agency for the period from September 2023 to September 2024, railways served 35.3 million passengers, making them the leading mode of mass transportation, surpassing air and sea transport, which served 7.1 million and 2.1 million passengers, respectively. Railways connect major cities, facilitating the flow of passengers and goods and supporting national economic growth. Furthermore, railways help alleviate road traffic congestion and reduce the environmental impact caused by land-based private vehicles. Innovations such as developing high-speed rail and revitalizing existing rail lines further solidify the railway sector as a key solution to modern transportation challenges in Indonesia. The government's significant investment in railway infrastructure, including high-speed rail projects and enhancements to local rail services, reaffirms the railway's role as the backbone of national mobility. This is increasingly critical as the demand for mass transportation grows with population and urbanization (Dephub, 2022).

PT Reska Multi Usaha (RMU), a subsidiary of PT Kereta Api Indonesia (KAI), was selected as the subject of this study due to its strategic role in enhancing the quality of railway transport services in Indonesia. As a company focused on supporting railway services, PT RMU manages various services that directly impact customer experience, including cleaning, security, parking, cafes, and railway restaurant services provided by train attendants. With increasing customer expectations in the transportation industry, PT RMU's ability to optimize service innovation performance is crucial for railway sustainability. Innovations resulting from frontline employees' direct interactions with customers can significantly enhance satisfaction and loyalty, strengthening PT RMU's competitive position in the transportation services market (Chapman et al., 2003).

Train attendants were chosen as the primary subjects of this study for several reasons. First, PT RMU's origins are closely tied to railway restaurant services currently managed by train attendants. The name "*Reska*" derives from "*restoran kereta api*" (railway restaurant), established in the 1930s during the Dutch colonial period. In 1971, under the management of Perusahaan Jawatan Kereta Api (PJKA), these services were rebranded as "RESTORKA," laying the foundation for PT Reska Multi Usaha. To this day, railway restaurants remain one of PT RMU's core businesses, with 286 restaurants operating along various railway routes in Indonesia (Reska, 2019). This history emphasizes that train attendants are not merely service providers but also stewards of a railway tradition deeply embedded in Indonesia's transportation history.

Second, train attendants play a strategic role in ensuring safe, comfortable, and high-quality travel experiences for passengers. As frontline representatives, they are key to maintaining passenger safety and comfort and are instrumental in implementing service innovations. Their understanding of customer needs and expectations gives them the potential to adopt innovative behaviors that can improve overall service quality. Encouraging innovation among train attendants enhances railway service quality and builds PT RMU's competitive advantage, making it more adaptive and responsive to challenges and competition in the transportation sector (Umrani et al., 2020).

Despite extensive research on service innovation, few studies explore its relationship with innovative work behavior in the transportation sector, especially among frontline employees. This research fills the gap by examining how innovative behaviors, such as idea generation, promotion, and realization, influence service innovation performance. By focusing on train attendants at RMU's Yogyakarta branch, this study provides insights into leveraging employee-driven innovations to enhance service quality and sustain competitive advantage in the transportation industry. These findings will help Indonesian transportation service companies, particularly PT Reska Multi Usaha, develop more effective strategies to navigate market dynamics, competition, and evolving customer demands.

2. Theoretical Background

Innovative Work Behavior (IWB) refers to individual behaviors that intentionally initiate, promote and implement new and valuable ideas, processes, products, or procedures within a workplace context (Farr & Ford, 1990). Unlike employee creativity, which primarily focuses on idea generation, IWB encompasses the additional critical stages of idea promotion and realization, aiming to achieve specific benefits and outcomes (Amabile, 1988; West, 2002). This distinction underscores the practical and result-oriented nature of IWB, emphasizing its potential to generate measurable, innovative outputs.

Scott and Bruce (1994) conceptualized IWB as a multi-stage process, drawing from jiao et al. (2015) framework, which outlines three key stages: idea generation, idea promotion, and idea realization.

Idea Generation

Involves identifying solutions to problems or opportunities for improvement in products, services, or processes. It requires combining and reorganizing existing information and concepts to create novel approaches (Van de Ven, 1986; Amabile, 1988). Effective idea generation often involves "kaleidoscopic thinking," where existing components are restructured into innovative wholes (jiao et al., 2015)

Idea Promotion

Addresses the challenge of gaining support for newly generated ideas. Since ideas often deviate from existing norms or practices, promoting them involves overcoming resistance, building coalitions, and securing organizational buy-in to ensure successful development and implementation (Shane, 1994; Howell et al., 2005).

Idea Realization

Focuses on implementing and integrating the promoted ideas into organizational processes, requiring sustained effort, resources, and a results-oriented mindset. This stage transforms ideas into tangible innovations, making them part of the organization's operational framework.

Research has shown that IWB plays a critical role in driving service innovation. For instance, Li et al. (2018) demonstrated a positive relationship between employees'

innovative behaviors and service innovation performance (SIP). This finding highlights the importance of fostering IWB among employees to enhance organizational innovation outcomes.

Service Innovation Performance (SIP)

Service Innovation Performance (SIP) represents how an organization achieves a competitive advantage through service innovation. It encompasses novelty, combining and modifying existing ideas, and utilizing organizational capabilities, resources, and skills to meet market demands (Fagerberg, 2005; Menor & Roth, 2007; Ordanini & Parasuraman, 2011). SIP is particularly relevant in service industries where success often depends on innovating in response to dynamic customer needs and market changes.

Measuring SIP remains complex due to the overlap between innovative behaviors and performance outcomes. Previous studies, such as those by Scott and Bruce (1994) and Janssen (2000), utilized multi-dimensional tools to evaluate innovative behaviors and their impact on organizational outcomes. However, conceptual ambiguities between IWB and SIP, highlighting the interconnectedness of the two constructs. Despite these challenges, Mennens et al. (2018) clearly defined SIP as the degree to which an organization achieves excellence through service innovations, focusing on improved efficiency, customer satisfaction, and market performance.

The Relationship Between IWB and SIP

Employees' innovative behaviors are critical to SIP, particularly in service-oriented industries. IWB facilitates identifying opportunities, creating novel solutions, and their eventual implementation, directly contributing to the organization's ability to innovate and stay competitive (Li et al., 2018). Specifically, frontline employees, who engage closely with customers, play a vital role in generating insights, addressing challenges, and translating ideas into actionable improvements in service delivery (Wu & Shi, 2007). These behaviors enhance customer satisfaction and strengthen the organization's adaptability to market dynamics.

By leveraging IWB, organizations can transform individual creativity into tangible innovation outcomes, ensuring sustained service improvement and competitive advantage. This study adopts Mennens et al. (2018) definition of SIP to explore how employees' innovative actions influence the success of service innovation efforts. The findings shed light on how fostering IWB can enhance SIP, contributing to organizational resilience and growth in competitive service markets.

3. Methodology

This study falls under conclusive research designed to test hypotheses and analyze effects using a structured, quantitative approach with a large and representative sample. Data collection follows a single cross-sectional method, conducted once within a specific period using targeted populations (Malhotra, 2010). The data is gathered through questionnaires with screening questions and systematic statements,

followed by data processing. Sampling was conducted using a non-probability, convenience sampling method, targeting respondents readily accessible to the researchers. Participants were selected based on their active employment status and a minimum of one year of work experience, ensuring they had sufficient familiarity with service delivery processes and challenges that could inspire IWB.

According to Chou and Bantler (1987), the recommended minimum sample size for SEM is five times the number of modeled indicators. Since the sample consisted of 58 cooperatives with 12 indicators, it did not meet this criterion. To address this, the researchers simplified the variable dimensions by implementing parcelling (Rhemtulla, 2016) and employing latent variable scoring (Jöreskog et al., 2006). This approach involved converting the second-order confirmatory factor analysis model into a first-order model. The sample size became adequate by reducing the number of indicators to 6. This method also enhanced parameter estimation stability for smaller samples (Bandalos, 2002) and improved the model's overall fit.

The survey was conducted among train attendants at PT Reska Multi Usaha, Yogyakarta Branch, with the criteria that participants must be actively employed and have worked for at least one year at the time of the study. The data collection process utilized a research questionnaire containing several questions and statements. The questionnaire was designed to be self-administered, meaning respondents did not interact directly with the researcher, and the questionnaire's completion of questions and statements was conducted independently without assistance from the researcher.

Once all the required data was collected, the next step was the researcher's analysis process. The researcher used the Structural Equation Modeling (SEM) method in the data analysis with Lisrel 8.80 software. Among the respondents, 50% were male and 50% were female. The most significant percentage (53.74%) were aged 21–25 years, (87.93%) had a high school education, and (56.90%) had worked for one to less than three years. The complete characteristics of the respondents can be seen in Table 1.

Table 1
Respondent Characteristics

Characteristics	Criteria	Total	Percentage (%)
Gender	Male	29	50.00
	Female	29	50.00
Age	19 to 20 years old	14	20.63
	21 to 25 years old	32	53.74
	26 to 30 years old	9	18.39
	>30 years old	3	7.25
Education	High school or equivalent	51	87.93
	Diploma 1 to 3	4	6.90
	Diploma 4 or higher degree	3	5.17
	More than 1 year to <3 years	48	82.76

Length of Service at Current Company	More than 3 years to <5 years	2	3.45
	More than five years	8	13.79

The variables tested in this study were assessed using a five-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"). Innovative Work Behavior (IWB) was measured using a scale adapted from Jansen (2000), encompassing three dimensions: Idea Generation, Idea Promotion, and Idea Realization. These dimensions reflect the ability of employees to generate creative ideas, advocate for those ideas, and implement them effectively. The measurement model for IWB demonstrated strong construct validity, with factor loadings for its indicators ranging from 0.58 to 0.95, exceeding the minimum threshold of 0.5 as recommended by Hair et al. (2019). Additionally, IWB showed robust reliability, with a Construct Reliability (CR) value of 0.86 and an Average Variance Extracted (AVE) value of 0.68, meeting the criteria of $CR \geq 0.7$ and $AVE \geq 0.5$.

Service Innovation Performance (SIP) was evaluated using a scale adapted from Mennens et al. (2018), which measures the degree to which organizations achieve competitive advantages through service innovation. Items on this scale assessed various aspects of service innovation quality, particularly in comparison to competitors such as buses, airlines, and passenger ships. For SIP, the factor loadings of its indicators ranged from 0.58 to 0.95, indicating strong construct validity. Furthermore, the reliability analysis yielded a CR value of 0.96 and an AVE value of 0.89, reflecting high internal consistency and the suitability of the measurement model.

The SEM model underwent rigorous testing, with Confirmatory Factor Analysis (CFA) confirming the construct validity and reliability of both IWB and SIP scales. Goodness-of-Fit Indices (GOFIs), including RMSEA, NNFI, CFI, IFI, SRMR, and GFI, supported the overall structural model's appropriateness, with most indices indicating a good fit. The study applied a one-tailed hypothesis test with a significance criterion of a t-value ≥ 1.645 or ≤ -1.645 . This comprehensive approach ensures the validity and reliability of the measures, providing a robust foundation for analyzing the relationships between IWB and SIP.

4. Empirical Findings/Result

In this study, the method used for data analysis was the Covariance-Based Structural Equation Model (CB-SEM) with the assistance of the LISREL 8.8 software. This method was also employed to test the proposed theoretical framework and hypotheses. SEM is suitable for addressing models with recursive paths, accounting for interactions between involved variables, and identifying relationships among variables as a unified structure.

The SEM modeling test is divided into two stages. The first stage involves testing the measurement model by assessing construct validity. Confirmatory Factor Analysis

(CFA) is conducted at this stage to evaluate construct validity and examine the relevance of indicators in representing latent variables. According to Hair et al. (2019), the criteria for measurement model indicators include factor loading values between variables and factors, which must exceed 0.5 to be considered significant. The factor loading values in this study ranged from 0.58 to 0.95, indicating that all indicators were valid. Reliability is assessed using the values of Construct Reliability (CR) and Average Variance Extracted (AVE). A model is considered reliable if the CR score is ≥ 0.7 and the AVE score is ≥ 0.5 . However, Fornell and Larcker (1981) also suggest that models with an $AVE \leq 0.5$ can still be considered reliable if the CR score is ≥ 0.6 . The CR values in this study ranged from 0.82 to 0.84, while the AVE values ranged from 0.61 to 0.63, meeting the criteria of $CR \geq 0.70$ and $AVE \geq 0.50$. Overall, the evaluation of validity and reliability supports the research model.

Once the model has been tested and produces ideal results consistent with reference values, the next step is to evaluate the structural model using Goodness of Fit (GoF) metrics. This evaluation assesses how well the developed model aligns with the tested sample. At this stage, path coefficients and their significance levels are estimated, providing insights for decision-making based on hypothesis testing. According to Hair et al. (2019), goodness of fit indicates how well the theoretical framework represents the reality depicted by the research data. Hair et al. (2019) also emphasize that there is no universally ideal value for determining goodness of fit; however, models with higher fit values than alternatives are generally preferred.

The evaluation employed six goodness-of-fit indices (GOFIs): Root Mean Square Error of Approximation (RMSEA), Non-Normed Fit Index (NNFI), Confirmatory Fit Index (CFI), Incremental Fit Index (IFI), Standardized Root Mean Squared Residual (SRMR), and Goodness of Fit Index (GFI), along with a significance test for the path coefficients. As shown in Table 2, the analysis of overall fit revealed that while GFI indicated a marginal fit, the other five indices demonstrated a good fit, confirming the structural model's overall appropriateness.

Table 2
Model fitness indices

Indicator	Standard	Test Result	Remarks
Goodness-of-Fit Index (GFI)	$\geq 0,90$	0.83	Marginal Fit
Root Mean Square Error of Approximation (RMSEA)	$\leq 0,08$	0,064	Good Fit
Standardized Root Mean Residual (SRMR)	$\leq 0,08$	0,075	Good Fit
(TLI) atau Non-Normed Fit Index (NNFI)	$\geq 0,90$	0.97	Good Fit
Comparative Fit Index (CFI)	$\geq 0,90$	0.98	Good Fit
Incremental Fit Index (IFI)	$\geq 0,90$	0.98	Good Fit

After completing the goodness-of-fit analysis for the overall structural model, the next step is to examine causal relationships. The t-value is utilized to determine the significance of the influence between latent variables, with the criteria being a t-value ≥ 1.645 for a one-tailed hypothesis test or ≥ 1.96 for a two-tailed hypothesis test. Positive (+) and negative (-) t-values indicate the direction of the influence between latent variables. This study employed a one-tailed hypothesis test, using the criteria of a t-value ≥ 1.645 or ≤ -1.645 . Consequently, it can be concluded that the influence of one variable on another is significant if the t-value is ≥ 1.645 (positive hypothesis) or ≤ -1.645 (negative hypothesis).

In this study, the t-value indicates a positive value of 5.34, with a coefficient of 0.65. The findings confirm that innovative work behavior, encompassing idea generation, idea promotion, and idea realization, positively affects service innovation performance. Based on the coefficients derived from each dimension of innovative work behavior, the dimensions of idea generation, idea promotion, and idea realization have high coefficient values of 0.99, 0.94, and 0.93, respectively. Six research indicators stand out with exceptionally high coefficients within their respective dimensions. The key indicator for the idea generation dimension is "I generate new ideas at work to solve difficult problems." In the idea promotion dimension, the notable indicators are "I gain approval for the innovative ideas I present" and "I can make influential colleagues feel enthusiastic about innovative ideas at work." Lastly, for the idea realization dimension, the prominent indicators are "I turn innovative ideas into useful practices or implementations," "I introduce innovative ideas into the work environment in a systematic manner," and "I evaluate the usefulness of innovative ideas."

5. Discussion

The significant impact of innovative work behavior (IWB) on service innovation performance (SIP) among train attendants at PT Reska Multi Usaha (RMU) can be explained through several key factors. First, IWB is inherently a driver of creativity, which is fundamental to service innovation. Train attendants are often in direct contact with passengers, providing them with valuable insights into customer needs, pain points, and opportunities for service improvement. This front-line position allows them to generate ideas that are highly relevant and timely, which directly translates into enhanced service innovation. The high coefficient for idea generation (0.99) indicates that the capacity to create new, creative solutions to address service challenges is the most influential dimension in the service innovation process. Train attendants' ability to identify and address service gaps proactively leads to innovation that can significantly improve the passenger experience and the company's competitiveness.

Idea promotion (0.94) also plays a critical role in the innovation process, as it highlights the importance of effectively communicating and gaining support for new ideas. Successful innovation not only depends on generating new ideas but also on convincing others—managers, colleagues, and stakeholders—of their value. Train attendants' ability to advocate for their ideas and promote them within the

organization ensures that these ideas have the potential to be implemented. This ability is crucial in a hierarchical organization like RMU, where a shared commitment to service improvement is necessary to drive change. By promoting their ideas and garnering support, attendants contribute to a collaborative culture where innovation is valued, leading to improvements in service delivery.

The third dimension, idea realization (0.93), reflects the importance of turning innovative concepts into tangible outcomes. It shows that innovation is not just about ideation but also about execution. For RMU, empowering train attendants to implement their ideas—whether through small-scale trials, customer feedback loops, or process changes—fosters an environment where employees feel ownership over service innovation. This sense of ownership strengthens the likelihood of successful innovation outcomes, as employees are motivated to see their ideas through to practical application. Additionally, the realization of innovative ideas directly contributes to service improvement, allowing the organization to meet changing customer demands, improve operational efficiency, and maintain a competitive edge.

In the context of RMU, the results of this study are particularly significant because they demonstrate that the success of service innovation hinges not only on the idea generation process but also on the subsequent promotion and realization of those ideas. This holistic approach to innovation emphasizes the need for a supportive organizational culture that encourages creativity, collaboration, and implementation. By nurturing each stage of IWB, RMU can create a dynamic and adaptable workforce that continuously contributes to service improvement, making the company more resilient to changes in the market and better positioned to meet customer expectations.

The findings are in alignment with the work of Melton and Hartline (2013), which underscores the critical role of frontline employees in driving service innovation. As these employees directly interact with customers, they are uniquely positioned to identify pain points and opportunities for improvement that may not be visible to higher-level management. Empowering these employees to engage in IWB, therefore, can have a profound impact on service innovation performance and overall service quality.

The robust reliability and validity of the measurement model, as indicated by CR values (0.82–0.84) and AVE values (0.61–0.63), confirm the suitability of the research framework. Moreover, the structural model's goodness-of-fit indices support its applicability, highlighting that the theoretical model accurately represents the reality captured in the data. This reliability ensures confidence in the findings and their implications for service innovation strategies.

The findings underscore the critical role of innovative work behavior in driving service innovation performance. The three dimensions of innovative work behavior—idea generation, idea promotion, and idea realization—play a significant role that managers must accommodate in managing train attendants effectively. To enhance idea generation, managers can encourage train attendants to identify creative solutions for addressing passenger complaints, improving travel comfort, or refining services. This can be facilitated through regular discussion sessions, such as forums or small

group meetings, where they can freely share experiences and ideas. Additionally, recognizing and rewarding attendants who contribute impactful innovations directly to service quality can motivate them to continue innovating.

In idea promotion, managers must train attendants with communication skills that effectively convey their ideas to the team or supervisors. Training on presenting ideas clearly and gaining support from colleagues can be highly beneficial. Managers can also establish formal channels, such as an idea submission system or an internal digital platform, where attendants can present their suggestions for service improvement. By fostering a culture that values new ideas and actively involving train attendants in decision-making processes, organizations can motivate them to participate actively in innovation efforts.

For idea realization, managers must ensure that proposed innovations can be practically implemented. This requires developing processes that allow train attendants to test and evaluate their ideas, such as through pilot projects on specific routes. Providing the necessary tools, procedures, and training to support the implementation of new ideas will enhance the success of these innovations. Moreover, managers should encourage attendants to take responsibility for the execution and outcomes of their ideas, fostering a sense of ownership and commitment to the success of the innovation. Feedback from managers and passengers is also essential to assess the effectiveness of implemented innovations and identify areas for further improvement.

By empowering train attendants to contribute creatively, supporting them in promoting their ideas, and ensuring effective implementation, managers can significantly enhance the quality of passenger experiences. This approach will improve service innovation performance and help create a dynamic, adaptive work culture focused on customer satisfaction. Ultimately, this will provide a sustainable competitive advantage for railway services.

This study has several limitations that provide opportunities for further research. First, the sample size of 58 respondents, drawn exclusively from train attendants at PT Reska Multi Usaha's Yogyakarta branch, limits the generalizability of the findings. Future research could expand the sample size and include train attendants or frontline employees from different branches or transportation companies across Indonesia to better capture regional and organizational variations. A larger, more diverse sample would enhance the robustness and applicability of the results.

Second, the study focuses solely on innovative work behavior and its impact on service innovation performance. While this relationship is critical, other factors—such as organizational culture, leadership style, job satisfaction, or customer feedback—may also significantly influence service innovation performance. Future research could adopt a more comprehensive framework to investigate the interplay of these factors and their combined effect on service innovation.

Third, this study relies on employee self-reported data, which may introduce bias due to respondents' subjective perceptions. To mitigate this limitation, future research could incorporate multiple data sources, such as supervisor evaluations, peer reviews,

or customer satisfaction metrics, to objectively assess innovative behaviors and service innovation outcomes more objectively.

Finally, the cross-sectional design of this study limits its ability to examine the long-term effects of innovative work behavior on service innovation performance. A longitudinal study could provide deeper insights into how consistent innovative behaviors contribute to sustained service innovation and organizational success. By addressing these limitations, future research can build upon this study's findings to provide a more comprehensive understanding of how innovative work behavior drives service innovation in dynamic service sectors.

Additionally, future research could explore how specific aspects of organizational culture and leadership styles influence the promotion of service innovation performance. For example, investigating how transformational leadership, which emphasizes vision and inspiration, or transactional leadership, which focuses on rewards and recognition, impacts employees' innovative behaviors could provide valuable insights. Furthermore, research could examine the role of leadership in facilitating a culture of innovation—how leaders create an environment that encourages risk-taking, collaboration, and idea-sharing among employees. Understanding the connection between leadership practices and IWB could help organizations identify key drivers for fostering innovation at all levels.

Moreover, the role of organizational culture in supporting or hindering service innovation performance warrants deeper investigation. A culture that promotes open communication, continuous learning, and recognition of employee contributions could play a pivotal role in driving service innovation. Exploring how cultural dimensions, such as power distance, collectivism, or individualism, influence IWB and SIP in the context of Indonesia's transportation industry, could add important nuance to the findings.

Future studies could also investigate the impact of employee job satisfaction and motivation on IWB and SIP. Understanding how job satisfaction, especially among frontline employees who interact directly with customers, influences their willingness to engage in innovative behaviors could provide actionable insights for improving service delivery. Moreover, research into the relationship between customer feedback and innovation might highlight the importance of incorporating external insights into service improvement efforts.

By adopting a more holistic approach that incorporates these variables, future research could provide a more comprehensive framework for enhancing service innovation in dynamic, competitive industries. This would be valuable not only for transportation companies but also for businesses in other service-oriented sectors.

6. Conclusions

This study highlights the critical role of innovative work behavior (IWB) in driving service innovation performance (SIP) within the transportation service sector, using PT Reska Multi Usaha's Yogyakarta branch as a case study. By focusing on the

innovative actions of frontline employees—specifically train attendants—, this research demonstrates that IWB, encompassing idea generation, promotion, and realization, significantly and positively impact SIP. The findings underscore the importance of empowering frontline employees as key agents of innovation, given their direct interactions with customers and firsthand knowledge of operational challenges and opportunities.

The results further reveal that each dimension of IWB contributes uniquely to service innovation. Idea generation provides the foundation by addressing challenges and creating novel solutions, idea promotion ensures these solutions gain the necessary implementation support, and idea realization transforms innovative concepts into actionable practices that enhance service delivery. These elements collectively drive customer satisfaction, operational efficiency, and competitive advantage, essential for organizational success in a rapidly evolving market.

The study also contributes to theoretical and practical understanding by emphasizing the need for organizations to foster an innovation-friendly culture. This includes providing training, resources, and support to encourage employees to engage in innovative behaviors. Moreover, using structural equation modeling (SEM) to validate the research model offers methodological rigor, ensuring that the relationship between IWB and SIP is well-established.

Despite its contributions, the study acknowledges limitations, such as its focus on a single branch and reliance on self-reported data. These constraints present opportunities for future research to explore broader, more diverse samples and integrate additional factors like organizational culture or customer feedback.

In conclusion, this study affirms that fostering innovative work behavior among frontline employees is a strategic imperative for enhancing service innovation performance. Transportation sector organizations can leverage employee-driven innovations to adapt to market changes, meet customer expectations, and maintain a competitive edge in an increasingly dynamic business environment.

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