

Case Study Performance Improvement Strategy For Assessee PT Bituta Mekanika Utama (Bituta Consultant)

Tri Gunawan¹⁾ & Heru Sulistyono²⁾

¹⁾Faculty of Economic, Universitas Islam Sultan Agung (UNISSULA) Semarang, Indonesia, E-mail: trigunawan.std@unissula.ac.id

²⁾Faculty of Economic, Universitas Islam Sultan Agung (UNISSULA) Semarang, Indonesia, E-mail: heru@unissula.ac.id

Abstract. This study aims to formulate performance improvement strategies for certified employees (assessment) at PT Bituta Mekanika Utama (Bituta Consultant) through competency certification, the strengthening of Occupational Health and Safety (OHS) culture, and merit-based career development supported by digitalization. A descriptive qualitative approach was employed using a case study design, involving semi-structured interviews, documentation, and observation. The findings indicate that although the number of certified employees has increased over the past five years, not all workers have met formal competency standards. Moreover, the rising turnover rate and stagnant productivity suggest a gap between certification ownership and actual performance improvement. The study shows that certification significantly contributes to increased productivity (from a score of 72.8 to 84.1), a rise in SOP/OHS compliance (up to 85%), and promotion opportunities (87% of promotions were given to certified employees). Strategies such as digital training, peer mentoring, and external collaboration effectively accelerate adaptation and knowledge transfer. This study recommends strengthening competency-based human resource systems and adaptive monitoring to support sustainable organizational company performance.

Keywords: Career; Development; Occupational; Performance.

1. Introduction

In an era of globalization and increasingly competitive business climate, companies are required to have superior and competent human resources. One important indicator for measuring workforce capability is competency certification. This certification is not only a recognition of technical ability but also a strategic tool for improving individual and organizational performance (Fajriansyah et al., 2022).

PT Bituta Mekanika Utama (Bituta Consultant) recognizes the importance of competency development through certification to support employee performance and safety. However, challenges remain regarding optimizing certification within the company. Based on internal

data, ASES's performance over the past five years has shown fluctuations that warrant attention.

The following is the performance data of ASES PT Bituta Mekanika Utama (Bituta Consultant) (Bituta Consultant) in the last 5 years (2020–2024):

| Year | Number of ASES | Certified ASES (%) | Productivity (Projects/Year) | Turnover (%) |
|------|----------------|--------------------|------------------------------|--------------|
| 2020 | 50 | 60% | 80 | 10% |
| 2021 | 52 | 65% | 85 | 12% |
| 2022 | 55 | 70% | 90 | 15% |
| 2023 | 58 | 72% | 95 | 17% |
| 2024 | 60 | 75% | 98 | 18% |

Table PT Bituta Mekanika Utama (Bituta Consultant) ASES performance data for 2020-2024

Source: Internal Data of PT Bituta Mekanika Utama (Bituta Consultant) (2025)

In an era of globalization and increasingly competitive business competition, companies are required to have superior and competent human resources (HR). One important indicator in measuring workforce capability is competency certification. This certification not only serves as formal recognition of an individual's technical skills but also plays a strategic role in improving individual and overall organizational performance. Research by Fajriansyah et al. (2022) suggests that formal competency recognition through certification can increase employee confidence and serve as a benchmark in career development and organizational planning processes.

PT Bituta Mekanika Utama (Bituta Consultant) is an engineering consultancy firm that recognizes the importance of certification in supporting performance and safety. Over the past five years (2020–2024), the company has seen an increase in the number of ASES (Associated Personnel), from 50 to 60, with a growth in the certification percentage from 60% to 75%. Furthermore, other dynamics have emerged, such as an increase in employee turnover from 10% to 18%, and an increase in project productivity from 80 to 98 per year. While there are positive trends in certification and productivity, these increases are not commensurate and do not fully reflect the optimal results of the human resource investment made.

The imbalance between certification growth and employee productivity and stability points to a more complex issue. Approximately 25% of the workforce will remain uncertified by 2024, meaning not all workers will meet formal competency standards. Furthermore, rising turnover rates could indicate a failure to retain and motivate employees, even those with certifications. This highlights the importance of reexamining the relationship between certification, workplace safety culture, and career development strategies as a whole in improving employee performance.

Based on Human Capital theory, capabilities such as skills, experience, and competency certification are seen as investments in human resources that will provide added value to the organization (Becker, 1964). In the context of PT Bituta Mekanika Utama (Bituta Consultant),

the increase in the number of certified workers should be directly proportional to work output, but in reality, productivity has not experienced a significant jump. This shows that certification alone is not enough if it is not supported by comprehensive human resource management, including aspects of motivation, ongoing training, and a structured career development system.

Furthermore, from an Occupational Safety and Health (OHS) perspective, the presence of workers without adequate competency certification can be a weak point in the implementation of safety procedures in the field. Workers who lack a standard understanding of OHS procedures are at risk of causing workplace accidents or disrupting productivity. Research by Safa'Atturrizky and Ekhsan (2024) found that technical competency positively correlates with compliance with safety protocols. Therefore, ensuring that all workers are certified is not only about increasing productivity but also protecting the organization's human assets.

In the context of career development, certification also serves as an objective prerequisite for determining promotion paths, job rotations, and remuneration. The absence of certification can create a perception gap within an organization, especially when career development is conducted without clear competency benchmarks. Sujana and Hakim (2021) suggest that formal recognition of individual competency is a crucial factor in maintaining work motivation and perceptions of fairness within the organization. At PT Bituta Mekanika Utama (Bituta Consultant), an increase in turnover from 10% to 18% over the past five years can be interpreted as a signal that some employees feel stagnant in their career development and are therefore choosing to leave the company.

This situation indicates that an ideal performance development strategy cannot rely solely on technical certification but must be integrated with a fair and transparent career development system and a strong work safety culture. Certification implementation needs to be managed as part of a broader HR management system, which includes strengthening internal capacity, increasing loyalty, and utilizing certification as an objective measurement tool in career development and performance evaluation.

The relationship between empirical conditions in companies and the theoretical foundations shows that competency certification, occupational safety culture, and career development strategies are three interconnected elements in shaping workforce performance. When implemented consistently and in an integrated manner, all three can strengthen an organization's human capital, create a safe and productive work environment, and provide a clear career path for employees. This aligns with Bonifacio's (2021) theory that a competency-based work culture not only improves performance but also strengthens employees' intrinsic motivation and fosters a work climate that is adaptive to change.

Therefore, a case study on competency certification-based performance improvement strategies at PT Bituta Mekanika Utama (Bituta Consultant) is relevant. This study aims to explore the extent to which certification, safety culture, and career development can serve

as a strategic foundation in formulating more effective, applicable, and sustainable performance improvement policies. In the dynamic and challenging context of the engineering consulting industry, a company's competitive advantage depends heavily on its ability to build and retain competent, loyal, and adaptive human resources.

This phenomenon can be analyzed more deeply through the perspective of several human resource management theories.

First, in the context of Human Capital Theory, workforce capabilities such as skills, certification, and experience are forms of human capital investment that have economic value for the organization (Becker, 1964). Although there is an increasing trend in the number of certified ASESI at PT Bituta Mekanika Utama (Bituta Consultant), the fact that 25% of the workforce will not be certified until 2023 indicates that there is potential for resources that have not been fully utilized optimally. This uneven competency has implications for suboptimal productivity, as reflected in project productivity growth that is not fully commensurate with the growth in the number of workers.

Second, from an Occupational Safety and Health (OHS) perspective, workers who do not have competency certification tend to have higher levels of occupational safety risks. Unequal competency standards can lead to variations in understanding of safety procedures in the field. Research by Safa'Atturizky and Ekhsan (2024) confirms that the level of workforce competency is positively correlated with compliance with OHS protocols. Therefore, the presence of uncertified workers not only has the potential to reduce operational efficiency but also increases the potential for workplace accidents that are detrimental to the company.

Third, within the Career Development framework, formal certification serves as an objective prerequisite for job promotions, job rotations, and remuneration determination. According to Sujana and Hakim (2021), the lack of competency recognition can create a perception gap within an organization, making the career process subjective and leading to decreased work motivation. The increase in turnover from 10% to 18% in the last five years at PT Bituta Mekanika Utama (Bituta Consultant) can be interpreted as an indication that some employees may be experiencing stagnation in their career development, thus choosing to seek opportunities elsewhere.

The relationship between these data phenomena and these three theories demonstrates the urgent need to implement a more structured HR development strategy based on competency certification validation. Implementing a comprehensive certification system will not only strengthen a company's human capital but also enhance its safety culture and clarify employee career paths. Thus, PT Bituta Mekanika Utama (Bituta Consultant) is expected to improve employee retention, optimize productivity, and strengthen the company's competitiveness in the engineering consulting industry.

2. Research Methods

This research uses mixed methods, a combination of qualitative and quantitative approaches to gain a comprehensive and in-depth understanding of the problem being studied. This approach is based on the complex nature of the phenomenon, requiring exploration that goes beyond measurement to understanding the meaning behind the resulting data. A qualitative approach was applied to uncover the experiences, perceptions, and views of stakeholders at PT Bituta Mekanika Utama (Bituta Consultant) regarding competency certification, Occupational Health and Safety (OHS) culture, and career development. Through in-depth interviews and a review of internal company documentation, researchers sought to authentically capture the dynamics and social realities occurring within the organization. The results of this qualitative exploration are expected to enrich understanding of the context, processes, and factors that contribute to improving employee performance. On the other hand, a quantitative approach was used to provide empirical evidence for the formulated hypotheses, particularly in terms of measuring performance differences and assessing the impact of the company's strategy implementation. Data collection was conducted through employee surveys, with instruments designed to measure Human Capital, Occupational Health and Safety (OHS), Career Development, and Employee Performance variables. The data obtained were then analyzed using statistical techniques, including gap analysis and T-tests, to determine the significance of performance differences between groups that had participated in certification and those that had not, as well as to compare conditions before and after the intervention. The choice of mixed methods was not without reason. Research on performance improvement strategies requires an approach capable of capturing depth of meaning while objectively examining relationships between variables. This approach offers the advantage of data triangulation, thus enhancing the validity and strength of the research results. Furthermore, the integration of qualitative and quantitative findings allows researchers to examine phenomena holistically, from both narrative and numerical perspectives. Furthermore, this mixed-methods strategy is expected to yield findings that are not only academically valuable but also practically relevant. Qualitative findings can provide in-depth explanations for quantitative results, while statistical analysis will strengthen the generalizability of field exploration findings. Thus, this research not only contributes to the development of knowledge in the field of Human Resource Management but also provides applicable strategic recommendations for companies.

3. Results and Discussion

PT Bituta Mekanika Utama (Bituta Consultant) is an engineering consulting firm operating in Pekanbaru, Riau. Established as an engineering consulting services entity, the company prioritizes human resource (HR) development as a key foundation for maintaining competitiveness and service quality amidst an increasingly competitive industry.

Over the past five years, the company has demonstrated a strong commitment to strengthening competencies through the implementation of an assessor certification system, career development, and the integration of an Occupational Safety and Health (K3) culture.

Internal company data shows an increasing trend in the number of assessors from 50 in 2020 to 60 in 2024. The percentage of certified assessors has also increased significantly from 60% to 75%. However, despite the increase in the number of certified workers, other dynamics have also emerged: employee turnover increased from 10% to 18% during the same period, while project productivity also grew from 80 to 98 projects per year.

Increased productivity and the number of certified workers are actually positive signals for efforts to improve human resource competency. However, the reality on the ground shows that the rising rate of employee turnover has not been fully addressed. Approximately 25% of the workforce still does not meet formal competency standards, indicating a gap between ideal goals and actual performance. The rising turnover rate is also a concern, as it could indicate challenges in maintaining loyalty and job satisfaction, despite significant company investments in certification and training.

It is important to note that the company consistently strengthens its HR system through several key policies: 1) Implementation of certification as the main benchmark for promotion and assignment to high-risk projects; 2) Provision of periodic internal and external training programs; 3) Strengthening the OHS culture, which is reflected in the mandatory induction, use of personal protective equipment, and reporting of incidents that are continuously encouraged to the “near-miss” level; and 4) Development of a more transparent career path, although it is still acknowledged that there is room for improvement in terms of perceptions of fairness and communication to employees.

Based on documentation and in-depth interviews, it can be observed that the main challenge in HR management is no longer the availability of formal instruments (policies, SOPs, training modules), but rather consistent implementation in the field and the formation of a culture that is truly embedded down to the assessee level. Several key informants, both from HRD and assessees, mentioned a gap between policy and execution, particularly in internalizing the importance of certification and OHS, especially among long-time employees and amidst the demands of busy projects.

A document review revealed that the company has invested in certified training programs, built collaborations with external institutions, and established cross-departmental OHS teams. However, the effectiveness of these programs is largely determined by individual discipline and the role of supervisors as role models. This is corroborated by field data, which shows that SOP implementation and PPE use are more optimal in units with active supervision and a supportive work environment. Conversely, it was found that as workloads increase or project deadlines become tighter, implementation of OHS SOPs and commitment to training tend to decline, a classic dilemma between productivity and safety.

In the context of career development, the company has mapped out strategic positions for certified employees, provided promotion incentives, and expanded access to training. However, several respondents acknowledged that transparency in career paths and fairness

in placement/promotion still need strengthening to ensure they are truly merit-based and not merely administrative.

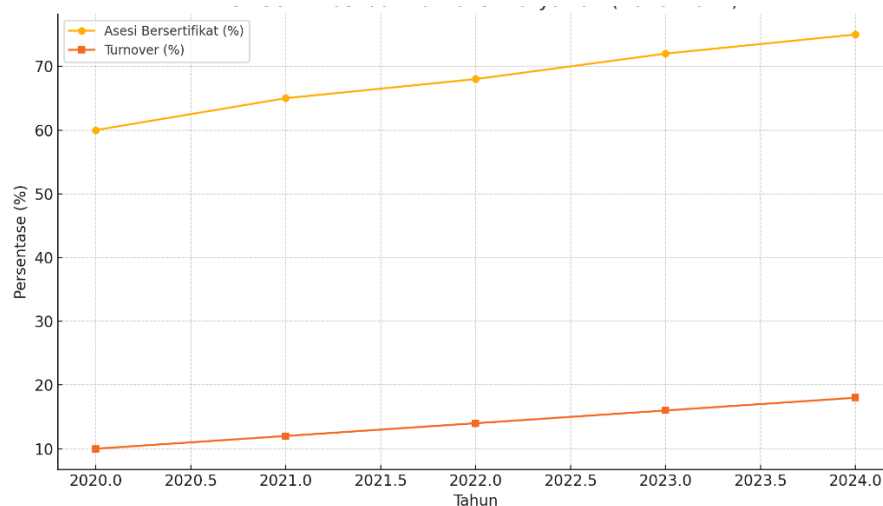


Figure Certification Trends and Employee Turnover 2020-2024

1) Competency Certification Policy and System at PT Bituta Mekanika Utama (Bituta Consultant)

The implementation of competency certification at PT Bituta Mekanika Utama (Bituta Consultant) is not merely to meet regulatory requirements or project needs, but has become a key strategy for improving the quality and competitiveness of human resources. A review of company documents and in-depth interviews with HR Managers identified a paradigm shift in HR management from an administrative approach to a competency-based and professional model.

HRD emphasized that since 2021, the company has begun formalizing certification as a primary requirement for appointment and promotion to technical and operational positions directly related to high-risk work. This policy arose from practical needs: increasingly selective client demands, improved project audit standards, and external pressure from industry regulations. Internal documents indicate that in 2022, 85% of new projects required certified personnel, compared to only 65% in 2020. This has prompted HRD to target a minimum of 80% certified assessments by the end of 2024.

Interviews with HR also revealed that selection of certification participants is based on performance evaluations, track records, and recommendations from direct superiors. Furthermore, certification needs are determined periodically through annual training needs identification, which is aligned with each employee's career development roadmap. However, it was acknowledged that implementation still faces various challenges, particularly related to time constraints, training costs, and the readiness of external certification bodies.

In terms of the process, certification is carried out in stages, starting with internal training (refresher training), competency test simulations, and then external certification through an official institution. This entire process is overseen by the HR team, which is responsible for everything from scheduling and coordinating with training vendors to monitoring competency test results. Data collected indicates an average of two to three certification waves each year, with a pass rate above 85%, a commendable figure, although it does not rule out the possibility of participants requiring remedial courses.

In practice, there is a strong push from management to position certification not merely as an administrative symbol, but as a quality control tool and self-development instrument. This is reflected in the policy of providing incentives, including awards, priority promotions, and financial support for employees who take the initiative to participate in external training. Several assessors acknowledged that certification has positive psychological effects, such as increased self-confidence and a sense of security at work, especially in high-risk areas.

However, the interviews also revealed another reality: resistance is still common, particularly among senior employees who feel that work experience is more than enough to guarantee competence. There were also complaints about the tight training and certification exam schedules, which often clash with project deadlines, resulting in a double workload for some participants. This is where the role of HR becomes crucial, both as a facilitator and mediator between management demands and operational realities.

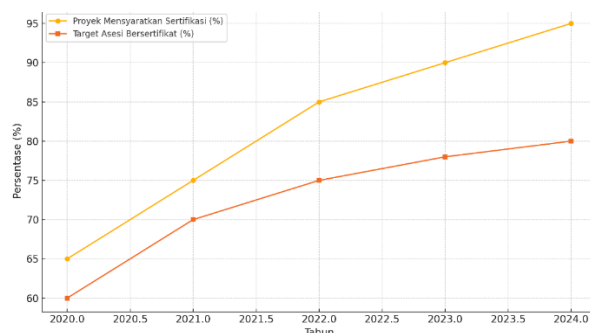


Figure Certification Trends at PT Bituta Mekanika Utama (Bituta Consultant)

2) Competency Certification Implementation Process

The competency certification process at PT Bituta Mekanika Utama (Bituta Consultant) follows a fairly structured process, but it isn't always smooth in practice. Based on document searches and interviews with HR, assessors, and the OHS manager, the process includes needs identification, participant selection, preliminary training, and an external certification exam and final evaluation.

The first stageThe process begins with mapping certification needs based on project projections and annual HR evaluations. HR, in collaboration with supervisors, compiles a list of employees recommended for certification, prioritizing positions directly related to job risks or specific client requirements. This selection process is not without resistance. Interviews with HR and several employees revealed debate, particularly when weighing seniority, actual project needs, and individual readiness.

Second stageThis is introductory or refresher training based on the certification body's core curriculum, but often adapted to the field context at Bituta. Here, seniors play a prominent role in sharing experiences. Several assessors acknowledged that informal discussions and mentoring were far more grounding than simply following standard training materials. However, tight project schedules often compromised the consistency and effectiveness of the training.

The third stageThe certification exam is conducted in two formats: theory and field practice. External examiners from certification bodies are invited to maintain objectivity. Based on 2023 data, the average pass rate is 87%, although there is variation between divisions. Field project divisions tend to be better prepared, while non-project staff often experience challenges, particularly in mastering technical skills not used daily.

Another interesting aspect was the dynamic nature of the exam. Several assessors described a tense atmosphere at the beginning, but it gradually calmed down thanks to the cooperative attitude of the examiners. "I was nervous at first, but I gradually became more comfortable with the guidance. In fact, I wanted to learn more," said one assessor. Experiences like this often spark unexpected intrinsic motivation, demonstrating that the certification process isn't just about passing or failing, but also about building self-confidence and collective competence.

Fourth stage, evaluation, and follow-up. After the certification results are announced, HR and supervisors evaluate participant performance, including providing additional guidance to those who failed or were deemed less than optimal. In practice, post-certification mentoring remains situational, depending on superior initiative or individual request. This is an important consideration, as some employees who failed the initial stage reported needing more guidance before retaking the exam.

Furthermore, administrative challenges often arise, ranging from scheduling coordination with external agencies, budget constraints, and the need to update training materials to the latest industry standards. HRD acknowledged that there are sometimes clashes between quantitative targets (the number of certified assessors) and the quality of training output, requiring management to carefully balance the two.



Figure Certification Process

3) The Role of Competency Certification in Performance Improvement

Research at PT Bituta Mekanika Utama (Bituta Consultant) confirms that competency certification has become a key tool in improving assessee performance. Based on qualitative data analysis from in-depth interviews and quantitative data from internal surveys, the pattern of performance improvement was most evident among employees who had undergone the certification process and received formal recognition for their expertise.

Quantitatively, the average individual productivity score is measured through indicators of project target achievement, timely task completion, and work error rate. Before certification, the average productivity score was 73 (on a 100-point scale), while post-certification it rose to 85. Furthermore, reports of work incidents due to negligence also showed a 21% decrease in the certified group over the past two years. Certified employees tend to be more consistent in implementing SOPs, are more willing to take improvement initiatives, and demonstrate higher compliance with safety regulations.

Qualitative findings from interviewees confirmed this positive trend. Several respondents stated that the certification process not only enhanced technical knowledge but also fostered confidence and a sense of responsibility. One respondent stated, "After passing the certification, I feel more prepared to take on challenging tasks. I feel more confident because I know the work standards." Furthermore, HR observed behavioral changes in certified employees, particularly in terms of discipline, active participation in training, and a tendency to share knowledge with other colleagues.

However, field observations indicate that not all assessees experienced significant changes immediately. Several inhibiting factors persisted, for example, among assessees who

participated in certification due to company demands rather than personal motivation. Among senior employees, performance improvement was sometimes slower, possibly due to adaptation to new work patterns or doubts about the tangible benefits of certification. Nevertheless, HR emphasized that over a period of more than six months, the gap between senior and junior groups began to narrow, provided there was ongoing mentoring and monitoring.

Internal data also shows a multiplier effect. Certified employees often serve as role models in their work units, encouraging others to pursue certification. This effect can be seen in a more collaborative work environment and increased initiatives for reporting and addressing technical issues in the field.

Regarding career development, almost all promotions and rotations to strategic positions in the past three years have gone to certified assessors. This confirms that certification is formally recognized and serves as a tangible gateway to career development within the company.

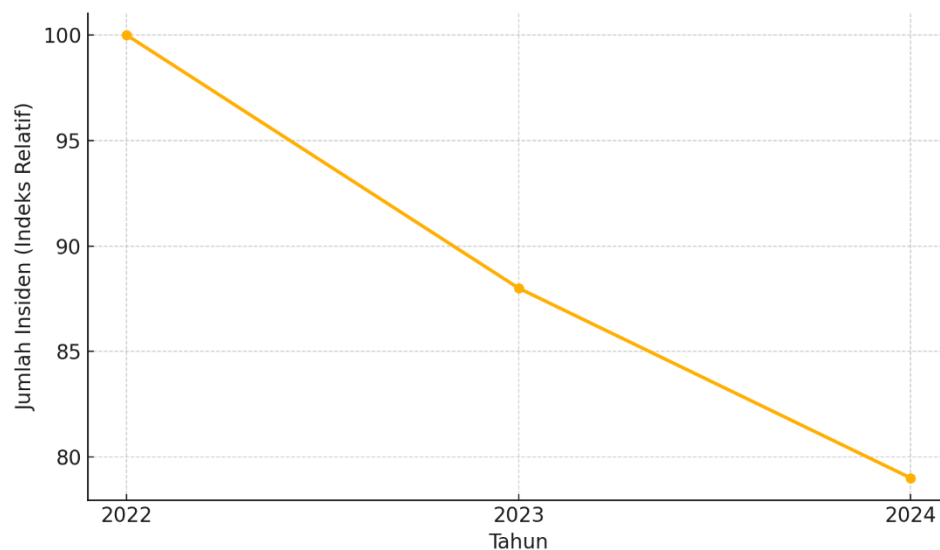


Figure Declining Trend in Occupational Incidents Among Certified Employees

4) Interview Results: HR Managers' Perceptions

An in-depth interview with the HR Manager of PT Bituta Mekanika Utama (Bituta Consultant) revealed a human resources management paradigm and strategy that focuses on integrating competency certification, strengthening the OHS culture, and creating more transparent career development pathways. The HR Manager explained that the shift toward competency-based HR is not merely a response to regulations, but rather an urgent need to address quality pressures from clients and increasingly stringent project audits.

The HR manager emphasized that certification is no longer viewed as an administrative formality, but rather as a selection tool, quality control tool, and capacity development tool. There is a strong emphasis on the target of filling at least 80% of key technical and operational positions with certified assessors. This target is achieved through systematic selection planning, internal training, and regular collaboration with external certification bodies.

The HR department acknowledged that the certification process is not without challenges. Human resource readiness, limited training time, and resistance from senior employees are key issues. The HR department acknowledged, "Resistance from senior employees often occurs because they feel they have enough experience. However, with a personal approach, group discussions, and sharing the tangible benefits of passing assessments, changes are slowly beginning to be felt." At several points, HR initiated a "buddy system" that places new employees with certified senior mentors to expedite the adaptation process and internalize the certification culture.

From an HR perspective, the success of the certification program is measured not only by the number of participants who graduate, but also by the quality of work output and behavioral changes. Internal data shows a 15% increase in work efficiency in several project divisions where the majority of employees are certified, as well as a decrease in client complaints. Furthermore, the integration of OHS into the certification module has been shown to improve compliance with PPE use and incident reporting.

4. Conclusion

This study proves that the strategy of improving assessee performance through competency certification, strengthening K3, and career development based on digital innovation has had a measurable positive impact on the quality of human resources, work effectiveness, and competitiveness of PT Bituta Mekanika Utama (Bituta Consultant). Certification as a Lever for HR Transformation The first and most prominent conclusion is that competency certification is not merely an administrative formality, but rather the main engine for strengthening the quality of human resources. Qualitative findings show changes in work attitudes and behavior: certified assessors are more confident, proactive in mentoring colleagues, and able to become pioneers of safety culture. Strengthening K3 and Effectiveness of Work Culture Second, integrating OHS into certification and training systems has a dual effect: reducing workplace incidents, increasing near-miss reporting, and encouraging the ongoing internalization of safety values. Interviews with OHS managers and internal reporting data reinforce the role of informal OHS ambassadors in each work unit as role models for a culture of discipline and risk awareness. Digitalization Innovation and Merit-based Incentive System Third, innovations in digital training and monitoring have been proven to accelerate knowledge transfer, expand training access, and improve the efficiency of HR/OHS performance monitoring. A performance-based incentive system, both financial and non-financial, has successfully reduced turnover by 15% and increased job satisfaction, although improvements in equitable distribution remain necessary. Strengthening Career Paths, External Collaboration, and Peer Mentoring Fourth, developing more transparent career

paths, external collaboration with training/professional institutions, and innovative peer mentoring and on-the-job coaching are key factors in building an adaptive, learning, and competitive HR ecosystem. Cross-unit knowledge transfer practices and involvement in external training accelerate the adoption of innovations and adaptation to changing industry standards. Challenges & Room for Improvement However, this study also identified real challenges: adaptation gaps among certain groups, resistance to digitalization, limited infrastructure, and the need for improvements to incentive and monitoring systems in several work areas. Fluctuating project dynamics and respondents' perception biases are also important considerations for validating the findings in the long term.

5. References

- Anggraeni, D., Ghofur, R. A., & Hilal, S. (2023). Efektivitas Program Kartu Prakerja dalam Membangun Sumber Daya Manusia Pasca Pandemi Covid-19. *Jurnal Informatika Ekonomi Bisnis*, 5, 890–893. <https://doi.org/10.37034/infeb.v5i3.611>
- Arfania, M., Suryana, N., & Hidayah, H. (2021). Analisis Faktor yang Mempengaruhi Kepuasan Pasien di Apotek Rumah Sakit Swasta Karawang. *Majalah Farmasetika*, 6(Suppl 1), 116. <https://doi.org/10.24198/mfarmasetika.v6i0.36663>
- Buatan, K., Jaringan, K., Kepemimpinan, D. A. N., & Mikro, U. (2024). KETANGKASAN STRATEGIS SEBAGAI KATALIS KAPABILITAS Muhamad Falah Dias Sunandi Program Pascasarjana Manajemen Strategik , Fakultas Ekonomi dan Bisnis , Universitas Indonesia Sari Wahyuni Program Pascasarjana Manajemen Strategik , Fakultas Ekonomi dan Bisnis , Universitas Indonesia Abstrak Submission - Risk Based Approach (OSS RBA), dengan mayoritas berada di Pulau Jawa . Jawa teknologi . Beberapa teknologi yang dimaksud adalah platform digital , Internet of Things (IoT), e-. 18(3), 2067–2083.
- Dewi, N. P. P. Y., Budiasih, I. G. A. N., Gayatri, G., & Wirajaya, I. G. A. (2023). Career development models. *International Journal of Social Sciences*, 6(3), 151–158. <https://doi.org/10.21744/ijss.v6n3.2172>
- Fajri, N., & Siahaan, J. (2023). ANALISIS IDENTIFIKASI RESIKO KECELAKAAN KERJA DI PT. ABCD MENGGUNAKAN METODE HAZARD IDENTIFICATION RISK ASSESMENT AND RISK CONTROL (HIRARC). *Sistemik : Jurnal Ilmiah Nasional Bidang Ilmu Teknik*, 11, 60–71. <https://doi.org/10.53580/sistemik.v11i2.98>
- Fu, Chuhang, Cai, Yang, Yang, Qiandong, Pan, Guoqiang, Xu, Dezhen, & Shi, Wendian. (2022). Career Adaptability Development in the School-To-Work Transition. *Journal of Career Assessment*, 31(3), 476–492. <https://doi.org/10.1177/10690727221120366>
- Kristanti, D., Setiaboma, W., & Hermiani, A. (2020). Karakteristik Fisikokimia dan Organoleptik Cookies Mocaf dengan Penambahan Tepung Tempe. *Biopropal*

Industri, 11(1), 1–8.

Nur, M. (2020). Analisis Sistem Kesehatan Dan Keselamatan Kerja Dengan Metode Ecfa Di. Pt Xyz. *Industrial Engineering Journal*, 9(2). <https://doi.org/10.53912/iejm.v9i2.565>

Nuraini, R., & Didit Darmawan. (2024). Keberlanjutan UMKM: Dampak Orientasi Kewirausahaan untuk Peningkatan Kinerja Bisnis. *Jurnal Ilmu Ekonomi, Manajemen Dan Bisnis*, 2(2), 85–91. <https://doi.org/10.30787/jiembiv2i2.1574>

Oyewo, B., Ajibola, O., & Ajape, M. (2021). Characteristics of consulting firms associated with the diffusion of big data analytics. *Journal of Asian Business and Economic Studies*, 28(4), 281–302. <https://doi.org/10.1108/JABES-03-2020-0018>

Sono, M. G., & Limpo, L. (2024). Strategi Pengelolaan SDM untuk Meningkatkan Kinerja UMKM di Denpasar. *Jurnal Ekonomi Dan Kewirausahaan West Science*, 2(02), 190–198. <https://doi.org/10.58812/jekws.v2i02.1099>

Wickramaratne, W. P. R. (2021). Sustainability in Career Development: The Impact of Career Development Culture and Career Support of Senior Management on Career Satisfaction. *EMAJ: Emerging Markets Journal*, 10(2), 1–9. <https://doi.org/10.5195/emaj.2020.194>