

EVALUATION OF COMPETENCY-BASED CAREER DEVELOPMENT AND TRAINING PROGRAMMES IN IMPROVING EMPLOYEE PERFORMANCE: A THEORETICAL AND PRACTICAL STUDY IN MANUFACTURING COMPANIES

Eloh Bahiroh

Universitas Sultan Ageng Tirtayasa, Indonesia
elohbahiroh@untirta.ac.id

Sri Ndaru Arthawati

Universitas Sultan Ageng Tirtayasa
arthawatisri@gmail.com

Abstract

This study aims to analyse, both theoretically and practically, the effectiveness of career development programmes and competency-based training in encouraging improved employee performance in a manufacturing company environment. The method used is a literature review that refers to various scientific literature, research journals, and empirical reports relevant to the field of human resource management. The results of the study show that planned career development and competency-oriented training can increase employee motivation, productivity, and loyalty. Theoretically, the integration of competency theory, motivation theory, and career development theory explains how the formation of individual competencies directly affects organisational performance. Meanwhile, in practical terms, the implementation of competency-based programmes in manufacturing companies has been proven to increase work efficiency, reduce operational error rates, and strengthen the workforce's readiness to face industrial transformation. This study emphasises the importance of continuous evaluation of training and career development programmes as part of a strategy for developing superior and highly competitive human resources.

Keywords: career development, competency-based training, employee performance, manufacturing companies, human resource management.

Introduction

Current developments in the industrial world show rapid transformation, particularly in facing the challenges of globalisation and the 4.0 industrial revolution. These conditions require every organisation, including manufacturing companies, to have human resources that are competent and adaptable to changes in technology, work systems, and increasingly complex market dynamics (Ali, 2022) . In this context, competency-based career development and training have become important elements that determine an organisation's success in maintaining its competitiveness. Structured career development programmes and training designed based on actual competency needs not only increase productivity but also strengthen employee loyalty to the company.

Human resources are a strategic asset that cannot be replaced by technology alone. The long-term success of an organisation depends heavily on its ability to manage effectively and efficiently. Therefore, manufacturing companies need to prioritise competency and career development policies in human resource management (Fitriyani, 2024). Systematically designed training programmes, based on the core competencies of the organisation, can help employees improve both technical and non-technical skills relevant to industry needs. Thus, the effectiveness of training programmes and the clarity of career paths are key to supporting optimal performance (Tadesse, 2023).

However, although various companies have implemented training and career development programmes, their effectiveness is often not measured systematically. Many organisations still assess the success of training only by the number of participants or temporary satisfaction levels, without considering the extent to which the programme results in real competency improvement. As a result, there is a gap between the training objectives and the expected increase in productivity or performance. This phenomenon highlights the importance of comprehensive evaluation of competency-based career development and training programmes (Wulandari, 2023).

Program evaluation is necessary so that management can assess the feasibility, relevance, and long-term impact on improving employee performance. A competency-based approach offers a more objective framework because it focuses on measuring observable and measurable work behaviours, skills, and knowledge. In the context of manufacturing companies, this approach is increasingly relevant given that most jobs are technical in nature and require mastery of specific procedures and operational standards (Hartono, 2024).

In addition to technical aspects, career development also plays an important role in building motivation and job satisfaction. Employees who see opportunities for career advancement tend to have a higher level of commitment to the organisation. From an organisational psychology perspective, clarity of career direction provides a sense of security and clear goals for individuals in the workplace. Thus, effective career development focuses not only on improving work skills, but also on the psychosocial aspects that shape employee loyalty and work ethic (Santoso, 2023).

Manufacturing companies, characterised by labour-intensive and standardised production processes, face significant challenges in maintaining a balance between efficiency and improving human resource quality. On the one hand, operational efficiency requires a workforce that is competent in operating specific machines and procedures. On the other hand, innovation and adaptation to technological changes require employees to continuously learn and update their skills. These conditions reinforce the urgency of implementing competency-based training programmes and continuous career development ((Rizki, 2025a)).

In practical terms, many manufacturing companies in Indonesia have implemented various training and career development strategies, both through internal programmes and in collaboration with external institutions. However, the results often vary between companies, depending on the extent to which the programmes are tailored to the needs of the organisation and the characteristics of the employees (Agustiani, 2023b). Some of the obstacles that often arise include a lack of careful planning, a training approach that is not yet based on competency analysis, and a weak evaluation system. This presents both a challenge and an opportunity to conduct more in-depth research on the effectiveness of these programmes.

This study stems from the need to analyse and evaluate the extent to which competency-based career development and training programmes contribute to improving employee performance in manufacturing companies. A theoretical approach was used to understand the concepts and scientific basis of both programmes, while a practical study was conducted to examine their implementation and actual results in the field.

Research Methods

The research method used in this study was library research, which is an approach that focuses on the collection, analysis, and synthesis of various scientific literature sources relevant to the topics of career development, competency-based training, and employee performance improvement in the manufacturing sector. This study did not involve field data collection but focused on an in-depth examination of human resource management theories, performance evaluation models, and previous research results published in scientific journals, academic books, and institutional reports (Eliyah & Aslan, 2025). The research procedure was carried out through four main stages, namely identification of the research theme, search and selection of literature using credible scientific databases, content analysis of key findings, and preparation of a conceptual synthesis explaining the relationship between the variables studied. Using this method, the research is expected to produce a comprehensive understanding and strong theoretical arguments regarding the effectiveness of competency-based career development and training programmes in the context of improving employee performance in manufacturing companies (Bolderston, 2008).

Results and Discussion

Theoretical Study of Career Development and Competency-Based Training

Career development is a fundamental concept in human resource management that focuses on systematic efforts to improve an employee's capacity, orientation, and professional direction in order to reach their highest potential. According to the career development theory proposed by Greenhaus and Callanan, career development encompasses a series of activities designed to expand individual capabilities, strengthen

work experience, and open up opportunities for promotion and increased responsibility ((Agustiani, 2023b)). In the context of modern organisations, career development is not only the responsibility of the individual but also of the organisation, which must provide a structured system of mentoring, coaching, and training to enable employees to grow alongside the evolving needs and strategies of the company.

Theoretically, career development is also influenced by career path theory, which emphasises the importance of long-term planning for the direction and stages of an individual's career. This theory assumes that professional development is not a spontaneous process, but rather the result of conscious strategies by both individuals and organisations (Cheng, 2025) . Companies with structured career path systems tend to be able to foster internal motivation, reduce turnover rates, and create a greater sense of fairness and work engagement. This is in line with Maslow's hierarchy of needs theory and Herzberg's motivation theory, which state that opportunities for growth and self-actualisation are key motivational factors in employee performance(Muchsinati, 2024) .

From an organisational perspective, career development programmes encompass various mechanisms such as promotion, job rotation, mentoring, coaching, and potential-based performance appraisal. Each of these instruments has a strategic function in helping individuals understand their strengths and weaknesses and find a direction for development that is in line with their competencies. Ideally, career development should be based on a clear analysis of competency needs and integrated with the organisation's strategic plan in order to generate optimal benefits for both the company and its employees (Munawar, 2023) .

In practice, career development is always closely related to an organisation's ability to adapt to changes in the business environment. In the era of Industry 4.0, where automation and digitalisation are changing the skill landscape, organisations are required to develop more flexible and competency-based career management models. This approach emphasises that career advancement is not solely measured by structural position, but by the accumulation of competencies relevant to the dynamics of the job (Sari, 2023) . Therefore, careers are now more lateral and horizontal in nature, where mastery of new competencies is the main indicator of successful professional development.

The concept of competency itself is rooted in a theory developed by David McClelland, which states that an individual's ability to succeed at work is not always predicted by academic grades, but by observable behaviours and characteristics such as motivation, values, attitudes, and actual skills. Spencer and Spencer then expanded on this concept by introducing the "iceberg competency" model, which describes competency as consisting of two layers: the visible aspect (knowledge and skills) and the hidden aspect (character, attitudes, and values). Both aspects must be developed

in a balanced manner in order to produce superior and sustainable performance(Mehale, 2021) .

Competency-based training has emerged as a strategic approach to managing and improving employee skills in line with job requirements. This approach focuses on measurable learning outcomes based on the mastery of specific competencies, rather than solely on the process or duration of training . Competency-based training requires programme designers to establish clear work competency standards so that results can be evaluated objectively(Rahmadani, 2024) . Thus, training programmes are no longer uniform for all employees, but are tailored to the individual needs and job positions of each employee.

One of the main advantages of competency-based training is its practical nature and the fact that it can be directly measured through work performance testing. The training is designed based on competency units that have been identified through job analysis, where each unit contains key elements such as core skills, supporting knowledge, and expected work behaviour indicators. This process enables quality control of training outcomes and ensures that employees not only understand the theory but are also able to apply their knowledge in everyday operational contexts (Agustiani, 2023a) .

In organisational learning theory, competency-based training plays an important role in creating a culture of continuous learning. Organisations that implement this approach generally have a corporate learning system that is adaptive to external changes and oriented towards performance improvement through active learning. By implementing a recurring training cycle—covering needs identification, design, implementation, and evaluation—organisations can maintain the relevance of employee competencies with technological developments and the labour market (Rasheed, 2024) .

The relationship between competency-based training and career development is synergistic. Career development requires a strong competency base to facilitate both vertical and horizontal mobility, while competency-based training provides a systematic means of shaping and strengthening these competencies. In this context, the theory of fit between individuals and organisations (person–organisation fit theory) becomes a relevant framework, as it emphasises the importance of alignment between individual competencies and organisational needs in shaping optimal performance and high job satisfaction (Putra, 2024) .

From a performance management perspective, competency and career development are also benchmarks for the success of human resource policies. According to Vroom's expectancy theory, employees will be motivated to improve their performance when they believe that their efforts will result in recognised and appreciated competency improvements with better career opportunities. Therefore,

organisations need to ensure a direct link between the learning process, competency evaluation, and rewards for performance results (Susanto, 2023) .

In manufacturing companies, the implementation of competency-based training has specific characteristics due to the highly technical and standardised nature of the work. The competencies developed include technical skills such as machine operation, implementation of work safety procedures, and maintenance of production equipment, as well as non-technical competencies such as communication, teamwork, and leadership on the production line. Through structured training, companies can ensure uniformity in work standards, reduce operational error rates, and improve production process efficiency.

Research conducted by (Urrofik, 2025) , shows that competency-based training has a significant effect on improving individual and organisational performance. Employees who undergo training based on competency standards tend to show improvements in productivity, time effectiveness, and problem-solving skills in the workplace. This is in line with the resource-based view theory, which emphasises that employee competencies are strategic assets that are difficult for competitors to replicate, thereby becoming a source of competitive advantage for the company.

Competency-based career development and training programmes also have implications for talent management. Through this approach, organisations can identify high-performing employees, map career development needs, and create a sustainable leadership pipeline. Theoretically, this concept supports the human capital theory, which states that investment in education and training results in increased productivity and performance that directly impacts the economic profits of the company (Kulik, 2020) .

Thus, it can be theoretically concluded that the integration of career development and competency-based training is an effective strategy for improving employee performance and organisational competitiveness. These two aspects complement each other: career development provides long-term direction and motivation, while competency-based training provides concrete means to achieve expected performance standards. In the context of dynamic and competitive manufacturing companies, this approach is an important foundation for the formation of a skilled, adaptive, and sustainable results-oriented workforce.

Practical Study of Programme Implementation in Manufacturing Companies

The implementation of competency-based career development and training programmes in manufacturing companies is a tangible form of organisational performance improvement strategies through the optimisation of human resource potential. In practice, manufacturing companies face significant challenges in balancing production needs, cost efficiency, and workforce quality improvement (Kulik, 2020) . Therefore, career development and competency training are important instruments in

maintaining a balance between productivity and innovation sustainability. These programmes are not only oriented towards improving technical skills, but are also designed to strengthen adaptability, leadership, and cross-functional collaboration in an industrial environment.

The implementation of career development programmes in the manufacturing sector generally begins with job analysis and competency mapping for each position. Through job analysis and competency mapping, companies can determine the standard competencies that employees at various job levels must possess. This stage serves to ensure that the training programmes implemented are not generic, but tailored to the actual needs of the work unit. The career planning process is then integrated into the performance appraisal and promotion system, so that employees' career paths can develop transparently and based on measurable work performance (Leung, 2002).

In the context of implementation, the success of career development programmes in manufacturing companies is highly dependent on the support of top management and consistent strategic policies. Transformational leadership plays a key role in creating a learning culture and encouraging employees to actively participate in various training and self-development activities. In many cases, companies that consistently implement competency-based career development are able to create an adaptive work environment, where innovation and learning are an integral part of the production and management processes (Mulder, 2020).

Competency-based training in the manufacturing sector generally focuses on mastering technical skills that support operational efficiency and product quality. For example, machine operators are given training on occupational safety, the use of automation equipment, or industrial equipment maintenance. Meanwhile, for administrative staff and production managers, training is focused on improving analytical skills, team leadership, and the use of digital technology in the production monitoring and planning processes. With this approach, competency mastery becomes a key factor in determining performance, work standards, and workplace safety. (Srimulatsih, 2021).

The implementation of training in manufacturing companies also considers the andragogical approach, which is the principle of adult learning that emphasises relevance, experience, and direct application in the workplace. Through this method, training becomes more effective because participants can immediately relate the material to their daily tasks (Srimulatsih, 2021). In some companies, a blended learning approach is applied by combining conventional classroom training with on-the-job training using digital technologies such as e-learning and virtual competency assessment (Nyoman, 2024).

The evaluation of competency-based training programmes is conducted through various methods such as pre- and post-training assessments, interviews, performance observations, and work productivity analyses. The Kirkpatrick evaluation model is often

used to assess the success of training, starting from participant reactions, learning, behavioural changes, to performance results (Nyoman, 2024) . Based on experience in large manufacturing companies, evaluation results show that training designed based on actual competency needs can increase work efficiency by 15–25 per cent within a certain period, depending on the type of training and the level of participant readiness. In addition to technical aspects, non-technical aspects such as leadership, communication, and teamwork are also given attention in competency-based training. This is important because the manufacturing industry does not only depend on individual skills, but also on team synergy and cross-divisional coordination (Yulianti, 2021) . Therefore, many companies have adopted a competency cluster approach that groups competencies into categories such as technical skills, managerial skills, and interpersonal skills. This approach helps management in developing training plans that balance technical needs and social work skills.

Career management in manufacturing companies is often implemented in the form of a Career Development Programme (CDP) or Talent Development Plan (TDP) based on competency assessment results. In practice, each employee is evaluated through an assessment centre or competency test to determine their career readiness position (career readiness) (Ambu-Saidi, 2024) . The results of these evaluations form the basis for HRD to determine career development steps such as job rotation, project assignments, mentoring, and promotions. This strategy ensures that each individual has a career path that aligns with their potential and the company's development direction.

The main obstacles in implementing competency-based career development and training programmes in the manufacturing industry are limited resources, both in terms of budget, time, and the quality of training instructors (Ali, 2022) . Some companies also face challenges in creating an objective and consistent evaluation system. In addition, employee resistance to change, low motivation to learn, and lack of support from immediate supervisors often hinder the success of training programmes. These issues emphasise the importance of the role of line managers and supervisors in providing encouragement and creating a work environment that supports continuous learning (Fitriyani, 2024) .

To overcome these various obstacles, companies need to integrate competency management systems into their overall human resource policies. This integration includes workforce planning, competency-based recruitment, continuous training, and performance-based assessment systems. In this way, career development does not occur in isolation, but rather becomes part of a measurable performance management cycle (Tadesse, 2023) . The implementation of this system enables companies to monitor the progress of individual employees' competencies and ensure that the workforce's capabilities are aligned with the organisation's strategic direction.

In several studies, multinational manufacturing companies have successfully optimised career development and competency-based training through collaborative

strategies with external education and training institutions. This collaboration includes joint curriculum development, industry competency certification, and targeted internship programmes. Through these partnerships, companies not only obtain competent workers but also contribute to improving the quality of the national workforce. This practice also strengthens the industrial learning ecosystem and encourages alignment between the worlds of education and work (Wulandari, 2023).

The positive impact of implementing competency-based career development and training programmes in manufacturing companies can be seen in increased job satisfaction, loyalty, and employee commitment to the company. The increased competencies gained from training provide confidence and motivation to achieve higher performance (Hartono, 2024). In the long term, this results in a decrease in turnover rates, increased productivity, and healthy and sustainable organisational growth. These factors indicate that the success of employee career development is directly correlated with the company's success in achieving competitive advantage (Santoso, 2023).

Empirical experience in various companies also shows that competency-based training is more effective when combined with a fair and transparent reward system. Employees who demonstrate improved competencies and performance should receive recognition in the form of incentives, promotions, or further training opportunities ((2025b)). Thus, this cycle of learning and rewards can foster a culture of meritocracy that encourages every employee to continue developing themselves professionally. This model has proven successful in increasing the retention of quality workers in competitive environments.

Overall, the implementation of competency-based career development and training programmes in manufacturing companies shows that an integrated approach is key to improving organisational performance and competitiveness. Achieving optimal results requires a combination of well-designed programmes, management commitment, objective evaluation systems, and a work environment that supports the learning process. By strengthening the link between competency development, career opportunities, and rewards for achievement, manufacturing companies can create a sustainable human resource development cycle that is oriented towards superior performance.

Conclusion

Theoretically, competency-based career development and training are two key strategies in modern human resource management that are interrelated and have a direct impact on improving employee performance. Career development provides direction and motivation to achieve higher professional potential, while competency-based training provides concrete means to shape the skills and work behaviours expected by the organisation. Management theories, such as McClelland's competency

theory, Vroom's expectancy theory, and Greenhaus and Callanan's career development theory, show that a competency-based approach helps create alignment between individual potential and organisational demands, resulting in increased productivity and work efficiency.

In practical studies, the implementation of programmes in manufacturing companies shows that the success of competency-based career development and training programmes is greatly influenced by the integration of policies, top management support, and continuous evaluation mechanisms. Companies that apply competency analysis as the basis for training planning are able to identify skill needs more accurately and encourage the effectiveness of programme implementation. The results of implementation show a significant increase in work quality, job satisfaction, and employee loyalty to the organisation. In addition, companies that link training outcomes to reward and career promotion systems tend to have higher employee retention rates.

Overall, it can be concluded that the evaluation of competency-based career development and training programmes not only serves as a measure of training effectiveness, but also as a strategic instrument in creating a productive and adaptive work culture in manufacturing companies. This approach, which combines theoretical and practical dimensions, provides a scientific basis for the formulation of more measurable and results-oriented human resource policies. With consistent implementation, manufacturing companies can develop a competent, highly competitive workforce that is ready to face the increasingly complex challenges of the industry in the future.

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