AOSIS

Training programme to develop title positions based on competency framework in the digital transformation of EVN

CrossMark
click for updates

**Authors:**
Tam T. Nguyen[1]
Ha T.T. Nguyen[2]
Tuan A. Le[1]
Thia N. Nguyen[1]
An T.H. Nguyen[3]
Lam Q. Vo[3]
Huong T.T. Truong[1]
Anh T.V. Nguyen[1]

Affiliations:
[1]Faculty of Economics and Management, Electric Power University, Hanoi, Vietnam

[2]Department of Greenwich, FPT University, Hanoi, Vietnam

[3]Vietnam Electricity Corporation, Hanoi, Vietnam

Corresponding author:
Tam Nguyen,
tamnt@epu.edu.vn

Read online:
Scan this QR code with your smart phone or mobile device to read online.

Orientation: Vietnam Electricity Corporation (EVN) has been digitising operations, automating them, and applying new technologies to improve production efficiency and labour productivity. It is essential to digitalise the training programmes based on the competency framework and integrate the framework of the training programme module into the human resource management system (HRMS).

Research purpose: This paper studies the training programme based on the competency framework and digitalisation of the training programme into the HRMS of EVN.

Motivation for the study: The study innovates human resource management in the way it functions. This study presents the process of designing the training programmes based on EVN's competency framework and integrates them into the HRMS.

Research approach/design and method: The article uses the desk method and the case study. A case study of EVN presents a comprehensive methodology for designing training programmes based on a competency framework.

Main findings: The training programmes digitalise into the EVN system. Using the information system of HRMS in EVN, 27 training programmes corresponding to 22 job families are described and integrated into HRMS.

Practical/managerial implications: The framework of the training programme is visualised based on suggestions. Some critical successes are present, and recommendations are suggested to update and confirm training programmes.

Contribution/value-add: The training programmes have a clear structure, training methods, and references to the EVN e-learning system. All training programmes are managed systematically and synchronously to connect to the next steps in competency assessment and personal development roadmap in EVN.

Keywords: human resource management; training programme; competency; framework of the training programme; digitalisation.

Introduction

In today's volatile and competitive business environment, training is an essential factor in deciding the long-term development of businesses. By providing knowledge and skills, training helps businesses adapt to constantly changing markets, reforms internal processes in business, improve service quality, and attract customer interest (Chapman & Lovell, 2006). Their financial performance is enhanced. Businesses cannot ignore investing in training because of IT trends and transparency management requirements. More and more businesses are interested in employee career development to retain organisational talent. Furthermore, the demands of employees and managers on lifelong learning needs are things that businesses need to pay attention to in order to build appropriate training programmes. Training is designed based on competency's position in hotel management (Horng & Lin, 2013).

A competency framework is a conceptual model that provides an other performance level within a given organisation. Competencies at the functional level can be used as sources of competitive advantage for employees in any organisation, namely efficiency, quality, innovation and customer responsiveness (Hill & Jones, 2001). Based on the competency framework, the training programme meets the requirements and gaps of positions in entities (Horng & Lin, 2013).

Vietnam Electricity Corporation has been digitising operations, automating them, and applying new technologies to improve the corporation's production efficiency and labour productivity. The Vietnam Electricity Corporation is the best organisation in Vietnam for digital transformation. Vietnam Electricity Corporation has approved the Digital Transformation plan for the entire corporation by the year 2020. The study innovates human resource management in the way it functions. This study presents the process of design the training programme based on the EVN's competency framework. The 1117 positions and 852 competencies in EVN are divided into core and technical competencies. Competencies range and are classified into five levels that correspond with the title positions of EVN. The training programmes are managed synchronously using human resource management software (HRMS) that demonstrates a comprehensive and synchronous digital transformation application in EVN. The training modules have been synthesised and compiled into 27 training programmes of 22 job families. Using the human resource management information system in EVN, training programmes are described and integrated into the HRMS. A case study of EVN presents a comprehensive methodology for designing a training programme for 22 job families, and is based on the EVN's competency framework.

The article proceeds in the following manner: In Section 1, the article provides the background and outlines the scope of the study. Section 2 presents a literature review of the competence framework and training programme based on the competency framework. Section 3 highlights the methodology adopted for the research. Section 4 shows the results. Finally, in Section 5 the conclusions and recommendations of the study are discussed.

Literature review and theory

Competency framework

Competency is defined as 'the ability of an individual to perform a specific job' (Véchot et al., 2022). Another definition is: 'A competency is defined as the ability to successfully meet complex demands in a particular context through the mobilisation of knowledge, skills, attitudes and values' (Taguma & Rychen, 2016). The human entity is represented through individual and collective competencies required to conduct procedures and evaluate its performance (Bennour & Crestani, 2007). Successful organisations depend significantly on the outcome of its workforce. Nevertheless, the performance of employees is influenced substantially by their professional knowledge, abilities and other necessary competencies (Bogdány et al., 2023).

The role of the competency framework: Competency frameworks play a crucial role in aligning training programmes with organisational goals. They provide a structured and systematic approach to identifying the specific skills, knowledge and behaviours required for employees to be outstanding in their roles and contribute to the organisation's success (Silzer & Church, 2009). The importance of competency frameworks is as follows:

1. *Targeted Training Initiatives*: Competency frameworks enable organisations to pinpoint the core competencies essential for different job roles within the company (Haberman & Aranya, 2018). By identifying these critical skills, training programmes can be tailored to address employees' specific needs, ensuring they acquire the necessary capabilities to perform their roles efficiently.

2. *Strategic Organisational Development*: Competency frameworks are closely tied to an organisation's strategic objectives (Sartori et al., 2018). They help align individual employee development with the company's overall strategic direction. This alignment ensures that training efforts are focused on skills that directly contribute to achieving organisational goals.

3. *Performance Management and Evaluation*: Competency frameworks provide a clear set of criteria against which employee performance can be assessed and evaluated (Jackson & Schuler, 1990). Training programmes based on these competencies help establish performance standards and foster a culture of continuous improvement within the organisation.

4. *Talent Acquisition and Succession Planning*: Competency frameworks guide the recruitment process by defining the desired competencies for new hires (Thunnissen et al., 2013). They also facilitate succession planning by identifying potential candidates for leadership positions and guiding their development through appropriate training programmes.

5. *Adapting to Changing Business Environment*: In a dynamic business landscape, competency frameworks help organisations identify the skills and knowledge needed to stay relevant and competitive (Chuang et al., 2019). Organisations can adapt quickly to evolving market demands and technological advancements by aligning training programmes with these competencies.

6. *Employee Engagement and Retention*: Employees are likelier to feel engaged and motivated when they see a clear path for professional growth and development (Marrelli et al., 2015). Competency-based training programmes allow employees to enhance their skills, boosting their job satisfaction and encouraging them to stay with the organisation.

7. *Cost-Effective Training Investments*: Competency frameworks help organisations avoid investing in generic training programmes that may not align with their specific needs (McGill & Beaty, 2017). By focusing on targeted competencies, organisations can optimise their training investments and maximise the impact on employee performance.

8. *Encouraging Continuous Learning*: Competency frameworks emphasise the importance of continuous learning and improvement (Hall, 2019). Employees are motivated to engage in ongoing training and development to maintain and enhance their competencies, fostering a learning culture within the organisation.

9. Competency frameworks are essential for aligning training programmes with organisational goals. They provide a strategic roadmap for developing the skills and capabilities necessary for organisational success. By customising training initiatives based on these competencies, organisations can enhance employee performance, increase engagement, and stay competitive in today's dynamic business environment.

Core elements of a competency framework: Function refers to the specific roles and responsibilities assigned to individuals within an organisation. In a competency framework, understanding job functions is crucial as it forms the basis for identifying the competencies required for effective job performance (Dries et al., 2008). By clearly defining job functions within the framework, organisations commit that employees have enough skills and capabilities to fulfil their roles and contribute to organisational success.

Job functions and competencies are closely intertwined within a competency framework, with competencies representing the knowledge, skills and behaviours required to perform specific job functions effectively (Ruona & Gibson, 2004). For example, a sales role may require competencies such as communication, negotiation and customer relationship management, which directly align with the functions of generating leads, closing deals and maintaining client satisfaction.

Training programme based on competency framework

Competency-based training strongly connects to human resource (HR) planning in particular (Ziakkas et al., 2022) and corporate strategy in general. In a business's digital transformation strategy, human resources play an essential role (Nicolás-Agustín et al., 2022). Human resources need to improve digital skills to meet the digital transformation needs of enterprises (Šefránek & Mikle, 2022). In the digital era, training programmes are crucial in equipping employees with the necessary skills to adapt to technological advancements and remain competitive (Bozkurt et al., 2015). By aligning training initiatives with organisational goals, training programme development contributes to the organisation's overall success (Goldstein & Ford, 2018).

Higher education helps business graduates who have the social, public, and higher-thinking competencies to prepare for future work at the enterprise. In contrast, employers within the business sector focus on individual, private and practical competencies (Bogdány et al., 2023). Higher education institutions frequently fail to get the necessary competencies that change and are relevant in the current labour market. Therefore, they are facing difficulty in developing employability skills for future workforce (Harman et al., 2010). Therefore, training of enterprises should follow the goal of developing job skills and job-specific competencies.

In many parts of the world, technical and vocational training has experienced dynamic transformation to varying levels (Bensah et al., 2011). A significant trend worldwide involves shifting from traditional subject-based to competency-based training (Bensah et al., 2011). Training based on competency is a quick and effective way to help learners or employees acquire new skills for the job. Unlike traditional training programmes based on a set of subjects, training programmes based on competency do not provide general knowledge but focus on three issues, namely skills, competencies and competency standard (Prabawati & AOktariyanda, 2018).

Training programmes based on competency develop transferable skills needed by employers, push the lifelong learning culture, and drive the system and people to quickly adapt to change (Bensah et al., 2011). Each field, organisation and enterprise may implement competency-based training programmes differently. It is quite common for organisations in the health sector to implement these programmes (Brightwell & Grant, 2012; Zeller et al., 2016). The education and training sector also proves evidence that this is a practical innovation trend (Bensah et al., 2011). The tourism business is also interested in this training method (Horng & Lin, 2013). In the chemical manufacturing industry, a company is interested in constructing and implementing a professional competency Development Programme for a group of engineering positions (Véchot et al., 2022).

In electrical vocational training, the competency-based training system also constructs situations to enhance trainees' skills in the 'electrical technology' modules; the results show that academic achievement for competencies has improved (Ahmed & Sayed, 2020). So, literature reviews show that building a training programme based on the competency framework is a modern method that can be effectively applied to many fields and industries. Moreover, this training method is especially suitable for the solid digital transformation trend in businesses and corporations worldwide, including Vietnam.

Research design

The study uses the desk research methodology to review training programmes on competency framework. That is basic for conducting our study in EVN. We describe the process of applying the theory into the EVN. The process ranges from the analysis of competencies, then transformation of competencies into training programmes of positions, digitalisation in HRMS of EVN, and management of training programmes.

We identify the requirements of training programmes: flexibility, connectivity and openness.

Flexibility

- The training contents in the programme have many different competencies. It is possible to apply the selection of training contents according to the corresponding modules for specific competencies for the title positions. In this case, the competencies employees in the title

position lack do not require them to take all the modules corresponding to the title positions.

- The framework of the training method is 70/20/10, in which 70% stands for On the Job Training, 20% for Coaching, and 10% for Classroom Training which help to improve self-study, self-training, practical training and integrated performance.
- There is a link between training content and competency assessment method.

Connectivity

- Higher-level positions are developed based on accumulation of additional competencies compared to lower-level positions.
- There is similar training content between similar positions with similar core competencies.

Openness

- Depending on the actual deployment conditions, adding more competencies or adjusting competencies and training modules to meet reality is possible.
- Adding or removing or adjusting training contents that correspond to competencies when adding or removing title positions to support training programme software.
- Training for continuous professional development and life-long learning.

Results and discussion

Functions and competencies of Vietnam Electricity Corporation

Vietnam Electricity Corporation was established in October 1994 by the then Prime Minister based on the reorganisation of the units of the Ministry of Energy. Vietnam Electricity Corporation is organised and operated under the state corporation and is a one-member limited liability company owned by the state. Vietnam Electricity Corporation deals with the production, transmission, distribution and trading of electricity. Vietnam Electricity Corporation is the most enormous corporations in Vietnam, and it has several units and functions based on social and economic objectives. Figure 1 shows the organisation chart that includes many units in EVN.

In human resource management, EVN has included employee empowerment using modern governance with properly planned monitoring and evaluation, aiming at productivity improvement and sustainable development of the corporation. Strengthening employees' learning culture and digital mindset is the centrepiece of EVN's reform measures in global uncertainty. Digital transformation in a training programme is among the EVN's digitalising projects. Based on the competency framework, the project team has analysed and designed a methodology for shaping the training programme of 22 job families and process management in EVN's software system.

The project team has designed a functional map and competencies mapping with title positions. All positions of job families are listed in Table 1.

Conducting process

There are three stages of conducting the training programmes

- *Stage 1:* Designing a programme framework for job families

Competency analysis and training content development

Each job family includes a set of competencies. Based on the competency dictionary, training contents are identified. This analysis has been repeated with all other competencies for the job family in Figure 2. Then, all training contents for the competencies of the job family are synthesised and arranged in a logical order to form training modules of the job families.

Determining levels of training

- The fundamental training level corresponds to the competency that is named for the first and second competency levels.
- The intermediate training level corresponds to the competency that has been named the third competency level and the fourth level in core competency.
- Advanced training level corresponds to the competency that has been named the fourth level in technical competency and the fifth competency level.

TABLE 1: List of job families of positions in Vietnam Electricity Corporation.

No	Job group	Job family
1	Business	Business
2	Business	Electric market
3	Finance	Auditing and inspection
4	Finance	Capital investment management
5	Finance	Financial accounting
6	Human	Leadership and management
7	Human	Human resource management
8	Human	Administrative management
9	Human	Examination and inspection
10	Human	Legislation
11	Human	Communication
12	Human	Secretary and general administration
13	Management	Strategy
14	Management	Planning
15	Management	Bidding management
16	Management	Investment management
17	Management	Construction management
18	Management	International relationship
19	Technical	Safety
20	Technical	Technology and environment
21	Technical	Repairing service – production technical
22	Technical	Thermal production – production technical
23	Technical	Hydroelectricity production – production technical
24	Technical	Distribution grid production – production technical
25	Technical	Transmission grid production – production technical
26	Technical	Power system regulation and automation – production technical
27	Technical	Telecommunication – information technology

Source: Vietnam Electricity Corporation Human Resource Management Software

Vietnam Electricity Corporation has been in the process of digital transformation for all corporations. Human resource management has had software that has been designed and developed internally. Human resource management software ensures EVN can change and develop this study.

Identify training method

The training programme uses three methods: On Job Training (OJT), Coaching, and Classroom Training. Using three methods is flexible and appropriate to the situation and the competency. One training content can be used one of these ways:

- OJT, Coaching and Classroom Training have a percentage of the time for learning that is 70%, 20% and 10%, respectively.
- OJT (not Coaching) or Coaching (not OJT) and Classroom Training have a percentage of the time for learning that is 90% and 10%, respectively.
- Only using OJT or Coaching.

If the competencies include training content in many different modules, then these contents have to ensure the same training method.

Identify assessment methods

The assessment method for Classroom Training includes tests, essay exams and written report assessments.

The assessment method for OJT or Coaching is writing and presenting a detailed report. The report shows an employee's knowledge and skills after learning from OJT or the result of teamwork after coaching.

- *Stage 2:* Synthesising training programmes from the training programmes of job families.

The training programmes of job families are coding. Then, the input of training programmes is imported into HRMS, which creates an aggregate training programme for all job families and competencies.

The competency and title position table that was integrated previously in the HRMS software is used. Accordingly, the software's function 'filter' will provide the corresponding training content and programmes needed.

- *Stage 3:* Appraising and feedback

Three workshops have been implemented to get ideas from related parties. The first workshop presented the methodology for designing the training programme framework and the demo of one training programme framework for human resource management. A pilot training programme for human resource management received feedback from the functional departments of EVN.

The second workshop presented a demo of two training programmes, Strategy and Telecommunication – Information Technology. There are two training programme frameworks and Position training programmes for title positions of two job families.

After receiving the information, the cooperating EVN team made complete progress in understanding the functions and EVN's desires. After 22 job families of training programme frameworks and position training programmes had been completed and adjusted, the third workshop showed comprehensively.

Structure of the training programme

The structure of the training programme includes the training programme frameworks and position training programmes. Twenty-two training programme frameworks correspond to job families and 1117 position training programmes correspond to 1117 positions of EVN.

According to EVN's competency dictionary, the training programme is designed with Training content (such as corporate governance in investment management training programme), Training levels, corresponding competencies of the job family, training methods, assessment questions, and material references for training content. The training programmes of 22 job families are input into EVN's HRMS. The training programmes can be used for job families and title positions (same title positions, same department level or same title hierarchy). These are built based on core competencies and training contents of modules in the appropriate job families (e.g. Strategy, leadership and management, human resource management and planning). The objectives of the training programmes are to convey the foundational knowledge, management skills, leadership skills and human resource management skills for all job families.

The position training programme is based on the training programmes of 22 job families in HRMS. For example, FCAG3001 – Head of capital management has 17 competencies. FCAG3001 training programme is extracted from the investment management training programme in the HRMS. The position training programme has competencies, training contents, training levels and training methods.

The core contents of the training programme are based on core competencies. The core training programmes are synthesised according to the core competencies, which are also separated into three levels, namely, fundamental, intermediate and advanced levels in the training programme. Technical contents of the training programme include general technical training content and in-depth technical training content

Digitalisation of the training programme and integration of the framework of the training programme module into human resource management

Introduction of the framework of the training programme module

The framework of the training programme (FoTP) module is a functionality of EVN's HRMS. It aims to store training

Organisational chart
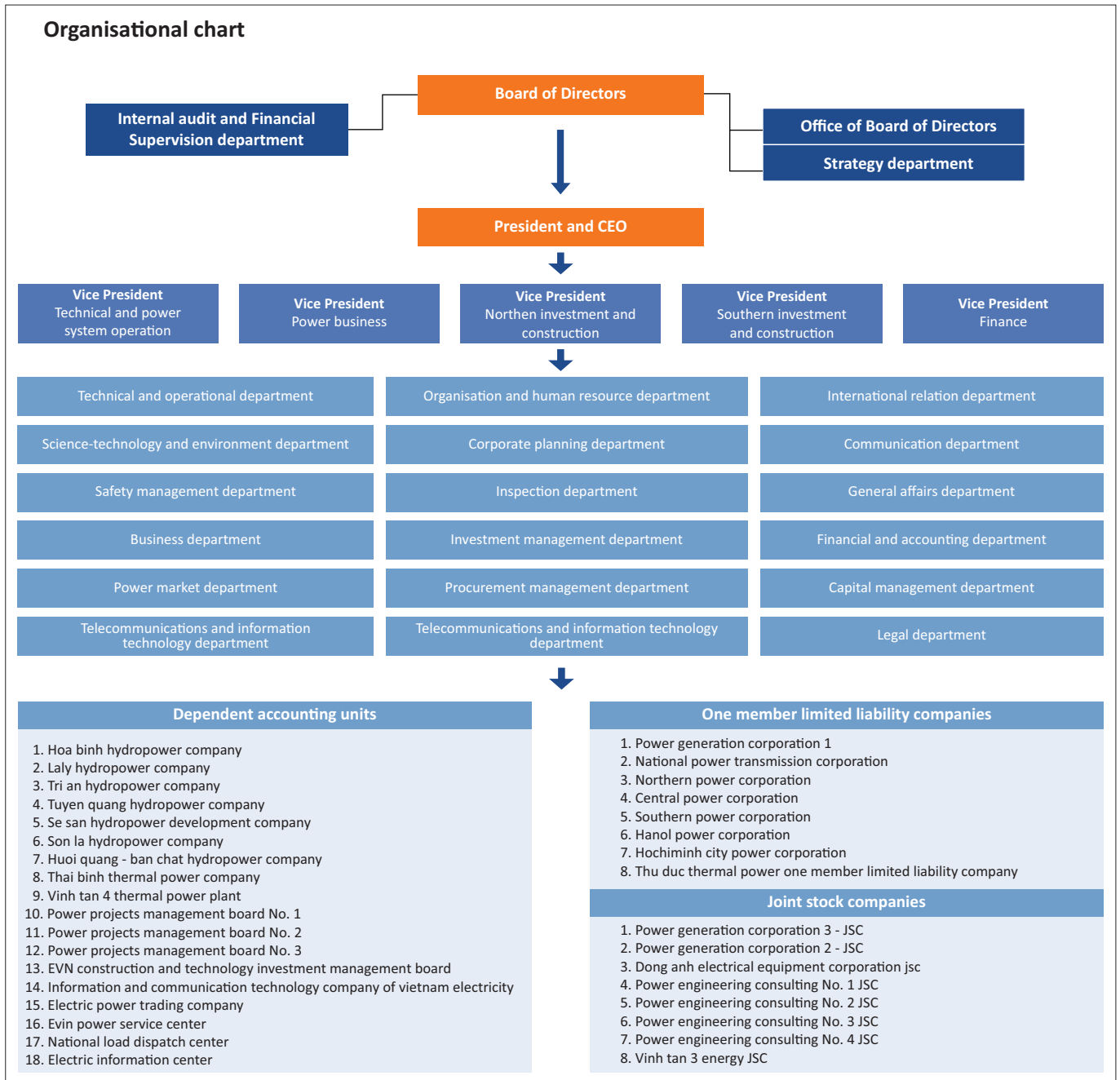
Source: Vietnam Electricity Corporation Website (https://en.evn.com.vn/)
CEO, Chief Executive Officer; EVN, Vietnam Electricity Corporation.
FIGURE 1: Vietnam Electricity Corporation's organisation chart.

programme data. It can be used to operate, update or add new training programmes for EVN's competency and position; support exploring and extracting training programmes for each competency and position; support staff viewing the training programme's content when they choose the way to personal development.

Management process of the framework of the training programme module

After digitalisation, the content of training programmes is regularly updated to ensure novelty, inheritance, and flexibility with the recent trends and development. There are two types
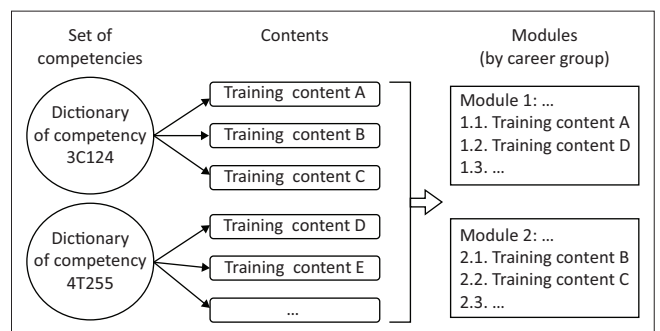

FIGURE 2: Analysing and synthesising training contents.

of content updates: periodic updates once every 2 years and regular updates once a year.

The process of periodic content updating of the Vietnam Electricity Corporation Framework of the training programme (2 years):

- The actors in this process
  - The employees of the whole EVN
  - Internal lecturers
  - Head of the Department of EVN and Dependent Units
  - Organisation and personnel specialist
- Head of the organisation and personnel department of EVN or dependent units
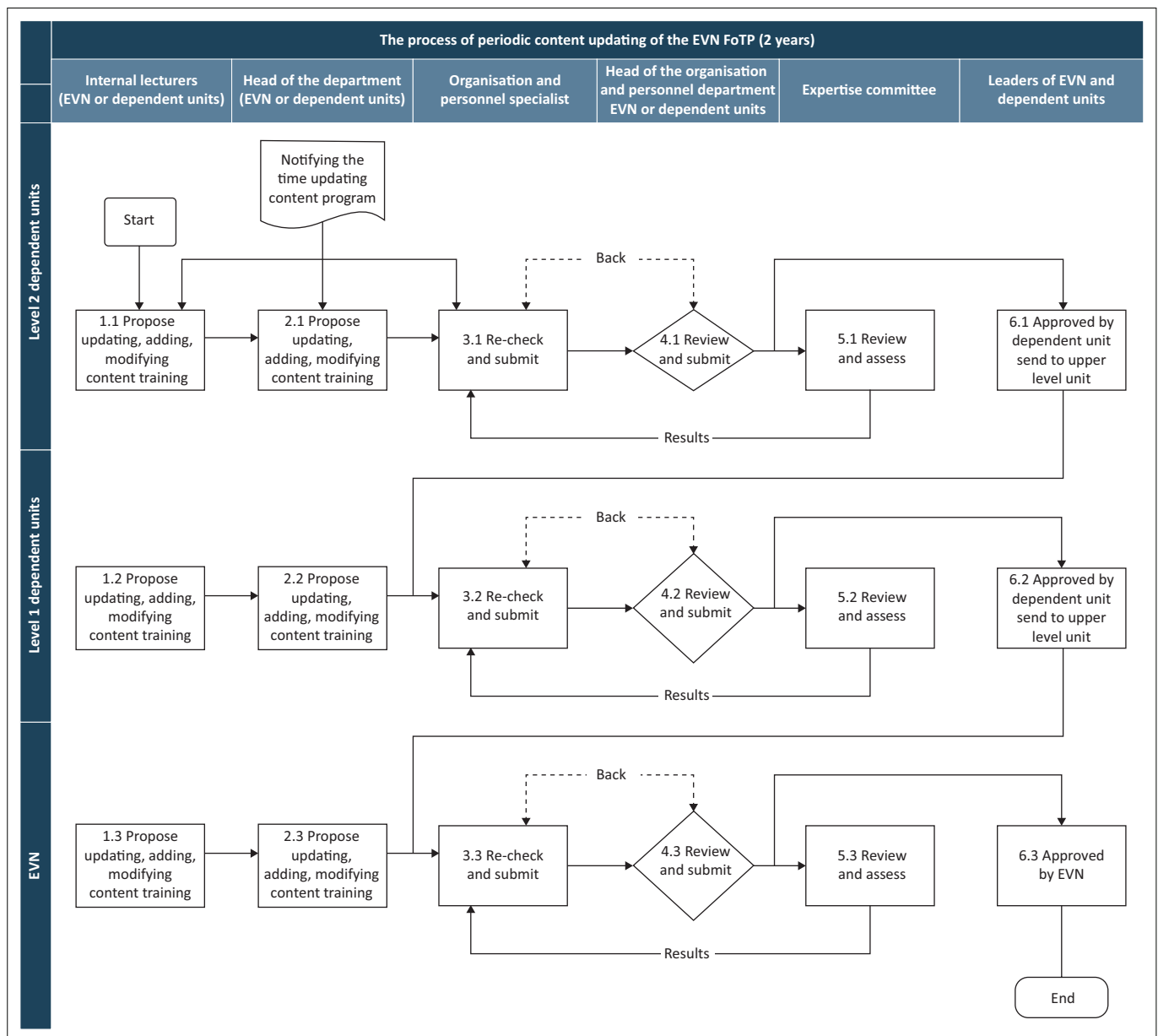- Leaders of EVN and dependent units

The process of regular content updating of the Vietnam Electricity Corporation Framework of the training programme (1 year):

- The actors in this process
- The employees of the whole EVN
  - Internal lecturers
  - Head of the organisation and personnel of EVN or dependent units

Features of the framework of the training programme module

After completion, this module can ensure the following requirements:

1. Allows actors to monitor the work process.
2. The new content will automatically replace and back-up the old training content by updating and modifying training content.
3. Export in Excel format.
4. Linking the FoTP module with the training module on the HRMS.

EVN, Vietnam Electricity Corporation; FoTP, Framework of the training programme.

The process of periodic content updating of the EVN FoTP any time					
Internal lecturers (EVN or dependent units)	Head of the department (EVN or dependent units)	Organisation and personnel specialist	Head of the organisation and personnel department EVN or dependent units	Expertise committee	Leaders of EVN and dependent units

The process of periodic content updating of the EVN FoTP (1 year)					
Internal lecturers (EVN or dependent units)	Head of the department (EVN or dependent units)	Organisation and personnel specialist	Head of the organisation and personnel department EVN or dependent units	Expertise committee	Leaders of EVN and dependent units

EVN, Vietnam Electricity Corporation; FoTP, Framework of the training programme.

5. All EVN or dependence unit employees are granted an account to access the FoTP module.
6. Support to digitally sign.
7. Digitising training contents and programmes.
8. Connecting between EVN's internal management systems such as HRMS or DO or EVNPortal.

Final training programmes

Twenty-seven training programmes are built for 22 job families and 1117 position training programmes. The technical job family is divided into six training programmes. The training programmes are aggregated into five job groups: Business, Finance, Human, Management, and Technical. The training programme of Production Technical has the most competencies, with 388 competencies and 340 title positions. The Thermal Production training programme has 184 competencies and 95 title positions, and the Distribution Grid Production has 220 competencies and 71 title positions.

The training programmes of 1117 title positions have been developed corresponding to the details of core training content, general technical and in-depth technical training

content. Experts and employees of EVN made the assessment questions a total of 2087 questions.

Twenty-seven training programmes are designed as follows:

- Number of competencies to meet (e.g. the training programme of Human Resource Management has 101 competencies to meet).
- Number of title positions (e.g. the training programme of Human Resource Management is built for 41 title positions of Human Resource Management in EVN)
- The total number of modules in the training programme includes the number of modules in core and technical content.

Conclusions and recommendations

The training programmes have a clear structure, training methods and references to the EVN e-learning system. All training programmes are managed systematically and synchronously to connect to the next steps in competency assessment and personal development roadmap in EVN.

The key success points of the training programme based on competencies are: (1) Commitment from EVN leaders and experts as they are decisive in making decisions; (2) personnel to join the team who have capabilities of human resource management, industry, information technology (IT), and experience in designing training programmes; and (3) good cooperation of EVN departments.

To keep and develop the training programme based on competencies, we should: (1) review the competency dictionary and the competencies for a position that counts for changes; (2) closely cooperate in function description and request of units in EVN to update appropriate competency dictionary; (3) update the training framework programme periodically in parallel with the updated competency dictionary. The training programme is updated to assess the competency of employees that are corresponding to title positions; (4) implement HRMS of the training programme and optimise the use of software, and support apps; (5) communicate effectively to all leaders, managers, and staff in the units of EVN to use the competency frameworks and training programmes.

Acknowledgements

Competing interests

Authors' contributions

All authors conceptualised, reviewed, edited, and wrote the original draft of the study. T.T.N. and H.T.T.N. devised the methodology. T.T.N., H.T.T.N. and T.A.L., conducted the formal analysis of the study. H.T.T.T. and H.T.T.N. developed the visualisation of the study. T.T.N., H.T.T.N., H.T.T.T. and A.T.V.N. performed the investigation. A.T.H.N. and L.Q.V. compiled resources. H.T.T.N., A.T.H.N. and L.Q.V. managed data curation.

Ethical considerations

This article followed all ethical standards for research without direct contact with human or animal subjects.

Funding information

Data availability

The data that support the findings of this study are available on reasonable request from the corresponding author, T.N.

Disclaimer

The views and opinions expressed in this article are those of the authors and are the product of professional research. It does not necessarily reflect the official policy or position of any affiliated institution, funder, agency or that of the publisher. The authors are responsible for this article's results, findings and content.

References

Ahmed, A., & Sayed, K. (2020). Development of competency-based training system in Assiut-ITEC: A case study. *The Journal of Competency-Based Education, 5*(3), e01217. https://doi.org/10.1002/cbe2.1217

Bennour, M., & Crestani, D. (2007). Using competencies in performance estimation: From the activity to the process. *Computers in Industry, 58*(2), 151–163. https://doi.org/10.1016/j.compind.2006.09.009

Bensah, E., Ahiekpor, J., & Boateng, C. (2011). Migrating from subject-based to competency-based training in Higher National Diploma Chemical Engineering: The case of Kumasi Polytechnic. *Education for Chemical Engineers, 6*(3), e71–e82. https://doi.org/10.1016/j.ece.2011.04.001

Bogdány, E., Cserháti, G., & Raffay-Danyi, Á. (2023). A proposed methodology for mapping and ranking competencies that HRM graduates need. *The International Journal of Management Education, 21*(2), 100789. https://doi.org/10.1016/j.ijme.2023.100789

Bozkurt, A., Akgun-Ozbek, E., Yilmazel, S., Erdogdu, E., Ucar, H., Guler, E., Sezgin, S., Karadeniz, A., Sen-Ersoy, N., Goksel-Canbek, N., Deniz Dincer, G., Ari, S., & Aydin, C.H. (2015). Trends in distance education research: A content analysis of journals 2009–2013. *International Review of Research in Open and Distributed Learning, 16*(1), 330–363. https://doi.org/10.19173/irrodl.v16i1.1953

Brightwell, A., & Grant, J. (2012). Competency-based training: Who benefits? *Postgraduate Medical Journal, 89*(1048), 107–110. https://doi.org/10.1136/postgradmedj-2012-130881

Chapman, J.A., & Lovell, G. (2006). The competency model of hospitality service: Why it doesn't deliver. *International Journal of Contemporary Hospitality Management, 18*(1), 78–89. https://doi.org/10.1108/09596110610642000

Chuang, S.F., Jackson, S.E., & Jiang, Y. (2019). Can knowledge-intensive firms adapt? Dynamic capabilities, collective learning, and organizational inertia. *Journal of Applied Psychology, 104*(4), 503–522.

Dries, N., Pepermans, R., & De Kerpel, E. (2008). Exploring four generations' beliefs about career: Is 'satisfied' the new 'successful'?. *Journal of Managerial Psychology, 23*(8), 907–928. https://doi.org/10.1108/02683940810904394

Goldstein, I.L., & Ford, J.K. (2018). *Training in organizations: Needs assessment, development, and evaluation*. Cengage Learning.

Haberman, M., & Aranya, N. (2018). Competency models and learning in organizations. *Human Resource Development Review, 17*(4), 353–375.

Hall, D.T. (2019). Career learning and development: A focus on competencies. *Journal of Vocational Behavior, 111*, 1–3.

Harman, G., Hayden, M., & Nghi, P.T. (2010). Higher education in Vietnam: Reform, challenges and priorities. In *Reforming higher education in Vietnam: Challenges and priorities* (pp. 1–13). Springer.

Hill, C.W., & Jones, G.R. (2001). *Strategic management: An integrated approach* (5th ed.). Houghton Mifflin Company.

Horng, J.S. & Lin, L. (2013). Training needs assessment in a hotel using 360 degree feedback to develop competency-based training programs. *Journal of Hospitality and Tourism Management, 20*, 61–67. https://doi.org/10.1016/j.jhtm.2013.06.003

Jackson, S.E., & Schuler, R.S. (1990). Human resource planning: Challenges for industrial/organizational psychologists. *American Psychologist, 45*(2), 223–239. https://doi.org/10.1037/0003-066X.45.2.223

Marrelli, A.F., Tondora, J., & Hoge, M.A. (2015). Strategies for developing competency models. *Administration and Policy in Mental Health and Mental Health Services Research, 42*(5), 521–530.

McGill, R.L., & Beaty, R.E. (2017). *Basic marketing research*. Cengage Learning.

Nicolás-Agustín, Á., Jiménez-Jiménez, D., & Maeso-Fernandez, F. (2022). The role of human resource practices in the implementation of digital transformation. *International Journal of Manpower, 43*(2), 395–410. https://doi.org/10.1108/IJM-03-2021-0176

Prabawati, I., & AOktariyanda, T. (2018). *Competency-based training model for human resource management and development in public sector*. Paper presented at the Journal of physics: Conference series.

Sartori, R., Morvillo, A., & Cuollo, A. (2018). Managing competencies for innovation in small and medium-sized enterprises. *International Journal of Manpower, 39*(8), 994–1008.

Šefránek, R., & Mikle, L. (2022). Digital transformation in HR. *Littera Scripta, 15*(2). https://doi.org/10.36708

Ruona, W.E.A., & Gibson, S.K. (2004). The making of twenty-first-century HR: An analysis of the convergence of HRM, HRD, and OD. *Human Resource Management, 43*(2–3), 111–126. https://doi.org/10.1002/hrm.20002

Silzer, R., & Church, A.H. (2009). The pearls and perils of identifying potential. *Industrial and Organizational Psychology, 2*(4), 377–412. https://doi.org/10.1111/j.1754-9434.2009.01163.x

Taguma, M., & Rychen, S.D. (2016). *2030 conceptual framework: Key competencies for 2030* (DeSeCo project of OECD - Organisational for Economic Co-operation and Development, Bejing, China).

Thunnissen, M., Boselie, P., & Fruytier, B. (2013). Towards an integrated model of competence management: Advantages, dilemmas, and trade-offs. *Human Resource Management Review, 23*(4), 267–280. https://doi.org/10.1016/j.hrmr.2013.05.004

Véchot, L.N., Olewski, T., & Al-Qahtani, A.H. (2022). Development and implementation of a process safety competency development program (PSCDP) for process safety engineers: A unique collaboration between industry (SABIC) and academia (MKOPSC). *Journal of Loss Prevention in the Process Industries, 80*, 104917. https://doi.org/10.1016/j.jlp.2022.104917

Zeller, M.P., Sherbino, J., Whitman, L., Skeate, R., & Arnold, D.M. (2016). Design and implementation of a competency-based transfusion medicine training program in Canada. *Transfusion Medicine Reviews, 30*(1), 30–36. https://doi.org/10.1016/j.tmrv.2015.11.001

Ziakkas, D., Michael, W.S., & Pechlivanis, K. (2022). The implementation of Competency-Based Training and Assessment (CBTA) framework in aviation manpower planning. *Transportation Research Procedia, 66*, 226–239. https://doi.org/10.1016/j.trpro.2022.12.023