Template-Driven Documentation for Enterprise Recruitment Best Practices

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Architecture.

Abstract: Recruitment Best Practices (RBPs) are useful when building complex Enterprise Recruitment Architectures

(ERAs). However, they have some limitations that reduce their reusability. A key limitation is the lack of capturing and documenting recruitment problems and their solutions from an enterprise perspective. To address this gap, a template for Enterprise Recruitment Best Practice (ERBP) documentation is defined. This template provides a model-driven environment and incorporates all elements that must be considered for a better documentation, sharing and reuse of ERBPs. For this purpose, we develop a precise metamodel and five UML diagrams to describe the template of the ERBPs. This template will facilitate the identification and selection of ERBPs and provide enterprise recruitment stakeholders with the guidelines of how to share and reuse them. The template is produced using design science method and a detailed analysis of three case studies. The evaluation results demonstrated that the template can contribute to a better documentation of

ERBPs.

1 INTRODUCTION

Recruitment is the practice of attracting sufficient numbers of qualified individuals on a timely basis to fill job vacancies within an organization (Ahamed and Adams, 2010). It is a key strategic opportunity for organisations to achieve a competitive advantage over rivals (Carless and Wintle, 2007). With this purpose in mind, organisations should seek support from enterprise architectures, shortly EAs (Penaranda et al., 2010; Vallejo al., 2012).

EAs rely on the integration of both a conceptual representation and a systematic approach to build a system (Zachman, 2008). In enterprise recruitment architectures (ERAs), the conceptual representation facilitates communication and coordination within and across the enterprise entities through a better visualisation and understanding of the enterprise components from different perspectives. On the other hand, a step-by-step methodology is to systematically transform the enterprise facilitated by different principles, methods, and tools (Gartner, 2008).

Methodologies based best practices can provide a systematic approach when building new information system or evolving existing ones (Molina and Medina, 2003). Recruitment Best Practices (RBPs) are already being shared and reused to some extent in

some organisations (Madia, 2011). However, they have some limitations that reduce their reusability: (1) they are fragmented and limited in scope (Simard and Rice, 2007; Buschmann et al., 2007); and (2) they lack proper documentation (Vesely, 2011).

With these limitations and the need of ERAs support, we define a template for Enterprise Recruitment Best Practice (ERBP) documentation. The objective of ERBP template is to provide a top-down strategy based on models for defining ERAs in different levels of abstraction towards software specifications. An ERBP will identify and combine a set of existing RBPs describing an ERA that fills a job vacancy in a specific enterprise context. To do this, we develop a precise metamodel complemented with five UML diagrams to describe the template of the ERBPs.

The goal of this paper is to design and evaluate a template for supporting the documentation and reuse of ERBPs. The main focus is on the template proposed to define and document the elements of ERBPs while the methodology of reusing ERBPs is out of the scope of this paper. The paper is structured as follows: this section presents an introduction to the research study. Section 2 provides a brief review of research on BPs sharing and reuse. Section 3 presents the research methodology followed to design and evaluate the ERBP template. Section 4 defines the

ERBP template and the relationship with the ERA elements. Section 5 shows the evaluation results of the ERBP template. Finally, Section 6 presents some conclusions and future work.

2 BEST PRACTICES

According to Renzl et al. (2006), best practices (BPs) are key approaches for sharing and reusing explicit knowledge. A great deal of research on the definition of BPs and their impact on knowledge transfer and reuse has been conducted. In the next subsections, the definition of BPs and the challenges that impede the sharing and reuse of BPs in general and recruitment-related BPs in specific are presented.

2.1 Definition of BP

BP is related to different domains and contexts, and is therefore subject to a variety of circumstantial definitions. Graupner et al. (2009) define BP as the most efficient and effective way of accomplishing a task, based on repeatable procedures that have proven themselves over time for large numbers of people. Investopedia (2016) defines BP as a set of guidelines or ideas that represent the most efficient and prudent course of actions.

2.2 Challenges in Documenting BPs

One of the key challenges in sharing and reusing BPs is the lack of proper documentation of BPs. More precisely, incomplete description of BPs reduce their reusability. Regardless of the industry of BPs, some key examples of such incomplete description are: lack of description of the purpose of the BPs (Hanafizadeh et al. 2009); and lack of description of the problem domain in which BPs are 'best' (Alwazae, 2015). Complete description of BPs is very crucial in their successful application and reusing (Mansar and Reijers, 2007; Simard and Rice, 2007).

Given the complexity of real-world practices, one way to promote BP completeness is to model the various attributes of a BP and establish a consistent structure for documentation (Vesely, 2011). This will enable a proper documentation, sharing and reuse of BPs. However, the way how a BP is properly modelled and structured has not been examined extensively in the literature (Alwazae, 2015). Hence, it is a knowledge gap for which this paper attempts to fill by providing a new template-driven documentation of recruitment-related BPs.

2.3 Challenges in the Scope of BPs

BPs have been criticised being limited in scope (Simard and Rice, 2007; Madia, 2011). This implies being intended to piecemeal and fragmented problems, and being seen as building blocks with no means to be combined in one meaningful entity (Stephenson and Bandara, 2007). Given that the focus of this paper is on enterprise recruitment, this scope will require new ways to capture and document enterprise recruitment best practices (ERBPs). This points up a knowledge gap in research for which the paper will try to address.

2.4 Challenges in the Selection of BPs

These concern the difficulties in finding and selecting BPs in large collections, or repositories (Hanafizadeh et al. 2009; Vesely, 2011). In this paper, the focus will be on providing domain-independent recruitment concepts that serve as search indices (Vesely, 2011; Graupner et al. 2009). These indices consists of recruitment terms that are not associated with a specific domain. Hence, practitioners are able to find and select ERBPs from different domains and industries.

3 RESEARCH METHODOLOGY

The research method used is design science. According to (Johannesson and Perjons, 2014), design science creates new artefacts for solving practical problems. These artefacts can be methods, models, constructs, frameworks, prototypes or IT systems, which are "introduced into the world to make it different, to make it better" (Johannesson and Perjons, 2014). The design science research process carried out in this research included five research activities as defined by the design science method framework of (Johannesson and Perjons, 2014). These activities and their application are presented below.

3.1 Problem Explication

The first activity in the design science process is to explicate the practical problem(s) that motivates why the artefact(s), in our case the ERBP template needs to be designed and developed. The practical problems are: (1) RBPs are fragmented and limited in scope; and (2) RBPs lack proper documentation. These practical problems denote knowledge gaps in the

literature which, in turn, impede sharing and reuse of RBPs. These knowledge gaps have been discussed in Section 2. Hence, the artefact (ERBP template) is designed to solve these problems and fill these gaps.

3.2 Requirements Definition

The second activity in the design science process is to define the requirements of the ERBP template. These requirements will be used as a basis to evaluate the resulting artefact and guide the construction process of it in addition to any refinement steps. Based on the literature review, the following requirements are selected:

- Requirement 1: The ERBP template shall be comprehensive. The ERBP template shall consist of a complete set of ERBP elements to achieve its defined goal. According to the research literature, the successful application of BPs depends on their complete documentation (Vesely, 2011).
- Requirement 2: The ERBP template shall be easy to use for sharing and reusing. Users should be able to use the artefact to achieve a particular goal easily. According to the research literature, a clear documentation structure will distil information about a BP and makes it easy to use (Motahari-Nezhad et al. 2010).
- Requirement 3: The ERBP template support both the creation of high quality ERBPs and the evaluation of already existing ERBPs. This means that the ERBP template should enable documenting of new ERBPs as well as guide the quality assessment of already designed ERBPs. According to research literature, a well-structured BP template will facilitate the creation and evaluation of BPs (Jashapara, 2011).

3.3 Design and Development

This third activity is to design and develop the artefact that address the explicated problems and fulfils the defined requirements, in this case design and develop the ERBP template.

The ERBP template was developed by means of two complementary processes: (1) addressing the elements of ERAs that support ERBP documentation; and (2) addressing the elements of ERBP template for documentation. The results of these two processes were merged together into the final ERBP template.

The ERA elements were selected from the artefacts (POCM and Onto-RPD) designed from the analysis of three case studies (SA enlistment, BA enlistment (UCAS recruitment) conducted in Alamro

et al. (2018). The links between ERA elements were also addressed. Thanks for the POCM and Onto-RPD artefacts. However, the elements of ERBP template were selected from the template provided by Buschmann et al. (2007) with some important elements added from the literature.

The elements of ERA and ERBP template were combined together in fulfilling of the defined requirements. The tentative draft of combination was validated and refined in a number of refinement phases. In each of which, one or two academic experts were asked to evaluate and refine the ERBP template. Purposive sampling was applied. In total, six academic experts in the area of BPs were interviewed. The final ERBP template is described in Section 4.

3.4 Demonstration and Evaluation

This activity is to use and assess how well the artefact solves the practical problem based on the defined requirements. We have evaluated the ERBP template by conducting a focus group of recruitment-related academic experts. The number of participants was 10 and the results are presented in Section 5.

4 ERBP TEMPLATE

The ERBP template is designed to document the key elements of recruitment practice in an enterprise environment. These elements are a combination of ERA elements and the elements of a selected template from the literature for a more comprehensive documentation of an ERBP. The ERA elements that must be taken into account are as follows:

- Goal of recruitment: The goal of enterprise recruitment has been clearly defined as "to fill a vacancy". Depending on the size and the type of industry and organisation in which recruitment is conducted, the number of vacancies and their types may vary.
- Problem: The problem of enterprise recruitment reflects the potential/existing differentiation or fragmentation between a number of recruitment stakeholders' interests across a number of interest dimensions such as recruitware, information, and timing (Alamro et al., 2018). An enterprise recruitment problem is defined as the problem frame (i.e. type of problem) that is agreed on by all stakeholders as the most problematic issue to be solved towards the goal of recruitment.
- Symptoms/Threats: There are a number of symptoms or threats that are associated with the

enterprise recruitment problem and prevent the goal of recruitment to be achieved. These are: no engagement (i.e. when there is no action received at all from the target agent); withdrawal (i.e. when a target agent withdraw out of interaction); and rejection (when a target agent clearly send a rejection message to an offer). A recruitment analyst must be aware of these symptoms/threats and find the root causes (i.e. interest dimensions) that lead to such actions.

- Context: A major factor of successful sharing and reuse of an ERBP is to capture the knowledge of the business context or domain in which a recruitment problem exists. The business context can be recognised by a combination of the specific recruitment problem frame and the corresponding recruitment solution (i.e. policies, actions, and software specifications) to solve this type of problem according to its goal of recruitment and environment. It is very common that problem owners characterise the problematic situations as being of a known problem type or category (Smith, 1989; Abd Rahman et al., 2011). Hence, rather than representing and defining the current situation as a whole, they define a problem by matching the features of this situation to the characteristics of well-known experienced problems so facilitating the selection and tailoring of recruitment policies, mechanisms, and IT solution specifications. The environment for ERBPs is composed of recruitment realms (RRs) and is associated with an enterprise overarching based on the interest levels and the set of policies applied on each interest dimension within these RRs. These subelements will be explained in the next sections.
- Stakeholders: A stakeholder can be any individual, a group of individuals, or an organisation with an interest or set of interests in enterprise recruitment system. The stakeholders of an ERBP populate the recruitment realms (RRs) and interact with each other across interest dimensions.
- Solution: A solution in ERBP must be captured in different levels of abstraction including technological tools. However, information systems such as recruitment system could operate without the use of e-solution or simply transform into e-space (Sharp et al., 2007; Smalikiene and Trifonovas, 2012). Hence, the solution in ERBP will be limited to four levels of abstraction: Recruitment Problem Definition (RPD), Early Requirements Definition (ERD),

Functional Requirements Definition (FRD), and E-Recruitment Solution Specification (ERSS). These four viewpoints of a solution were based on the ex-MDA (Fouad et al., 2011).

The elements of the template provided by Buschmann et al. (2007) and some new sections that we consider necessary when integrating with the ERA elements are described in the following texts:

- Name: The name of ERBP should represent the problem to be solved. The name must be also unique and within the scope of this type of ERBP.
- Intent: This provides a short description of the intended purpose of the ERBP.
- Context: This section describes the generic environment under which the ERBP should be applied. This may include: (a) the type of vacancies to be filled (job description and specification); (b) the RRs involved in the ERBP; (c) the set of stakeholders within each RR; and (d) the general features and interactions between RRs. This context can be specified by context diagram.
- Problem: This section describes the problematic situation that has led to the necessity to apply the corresponding solution, including: (a) the threats/symptoms; (b) the forces (problem frame and interest dimensions) that cause the problem and guide the solution; and (c) the type of interacting agents (whom to recruit (with)) because this will affect the recruitment mechanisms of the solution.
- Known cases: This section describes the real cases of known recruitment incidents related to the problem.
- Solution: This section describes how the problem is solved and how the threats associated with filling job vacancies and forces are treated. The solution will be expressed through the four levels of abstractions used in the POCM-RAA: RPD, ERD, FRD, and ERSS.
- Considerations: This section describes the set of key perceptions and impressions of all relevant stakeholders about the solution given in the ERBP.
- Consequences: This section discusses the benefits and drawbacks of the solution in relation to the forces (interest dimensions) found in the problem.
- Known uses: This section describes the real cases where the solution provided is used.
- Related ERBP: This section gives references to the ERBPs that solve similar problems, consider similar contexts, or complement this ERBP.

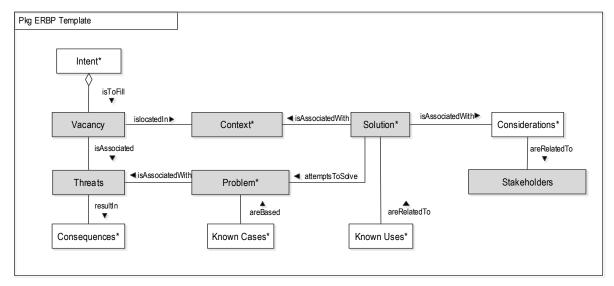


Figure 1: UML metamodel for ERBP template.

4.1 A Metamodel for ERBP Template

The ERBP template will include a wide range of items describing an ERBP that solves an enterprise recruitment problem in a specific context. To do this, the ERBP template will integrate, in one cohesive UML metamodel, both the ERA elements and all elements of the template defined earlier. Figure 1 presents the metamodel of ERBP template that defines the elements of ERA (shaded rectangle) and the elements of the ERBP template (white rectangle with *), as well as the relationships between them. However, some of these elements are shared such as context, problem, and solution.

In the next sections, the UML metamodel for ERBP template will be complemented with a number of UML diagrams to describe the details of each element of the ERA (shaded rectangles) used in Figure 1 to define and document the ERBPs.

4.1.1 UML Metamodel for Vacancy

When building a recruitment system, organisations should identify their job vacancies in order to facilitate the recruitment analyst's work. This identification includes the job description (i.e. all the job-oriented information about a specific job); and the job specification (i.e. all employee-oriented information required to fill a job). These information indicate the importance that those job vacancies have for organisations and the interest record that has to be or factors so that when classifying jobs, the organisations should seek support from a risk analysis methodology.

The identification of job vacancies will facilitate the setup of cost-effective policies that constitute the interest record necessary to fill these vacancies. For example, the 'location of work' of a job vacancy will need recruitment policies related to the quality feature "accessibility"; the 'tasks involved' will need recruitment policies related to the quality feature "familiarity". However, there might be vacancy elements that need a set of recruitment policies to be considered. Figure 2 presents the metamodel of vacancy.

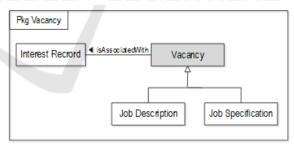


Figure 2: UML metamodel for vacancy.

4.1.2 UML Metamodel for Context

The elements included in the context of ERBPs are: The type of enterprise recruitment addressed in an ERBP, the recruitment realms (RRs) involved in that type of enterprise, and the interest record associated with those realms. Figure 3 presents a UML metamodel of the context elements and the relationships between them.

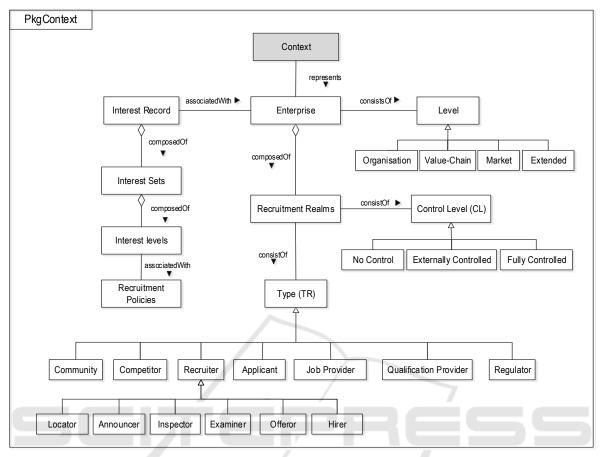


Figure 3: UML metamodel for context.

The Enterprise Levels

The enterprise can be addressed from different perspectives or levels. According to Graves (2009), these levels are the organisation level, the value-chain level, the market level, and finally the extended level where the enterprise includes everyone. In each level, there will be a set of recruitment realms (RRs) involved. These RRs are explained in the next section.

Recruitment Realms (RRs)

RRs can be defined as logical and discrete entities that partition the enterprise network. Based on the definition of recruitment adopted in Alamro et al. (2018), these RRs have the same interest dimensions and quality features through which they interact. Therefore, a set of different recruitment policies can be applied in each RR.

In Figure 3, there are different types of realms (TR) that can be found in enterprise recruitment. These RRs, based on Alamro et al. (2018), are:

- Recruiter: This realm consists of a recruiter or a group of recruiters with the same purpose.
 Recruiters typically conduct recruitment activities. This realm is composed of the following:
 - Locator: The one who typically define or find where the potential applicants are.
 - Announcer: The one who prepares recruitment message and selects one or a set of methods to announce it to the target applicants.
 - Inspector: The one who screens applicants or their applications against a set of requirements to discover if there is anything wrong with them.
 - Examiner: The one who assesses the things such as knowledge, skills, and abilities that have been thought to the applicant.
 - Offeror: The one who selects a candidate and extends an offer for him.
- Hirer: The one who signs the recruitment contract with an applicant.

- Applicant: This realm consists of one applicant or a group of applicants with the same purpose. An applicant typically seeks a job and apply for it. Applicants could be internal as employees inside the organisation; or external from the outside. Applicants are the customer of recruiter in case of value-chain enterprise.
- Job Provider: This realm consists of one job provider or a group of job providers with the same purpose. Job providers are typically responsible for the creation of a job vacancy, the notification for filling, and the embarkation of new recruits. Job providers are job suppliers in the case of value chain enterprise.
- Qualification Provider: This realm consists of one qualification provider or a group of qualification providers with the same purpose. Qualification providers are those provide things such as statements, references, reports or letters that qualify an applicant to apply for a job. Examples of this realm are schools, universities, hospitals, or identity checkers. Qualification providers are supplier of recruiter in case of value-chain enterprise.
- Regulator: This realm consists of one regulator or a group of regulators with the same purpose. A regulator is typically a person or organisation whose job is to control recruitment-related activities and make sure that they operate according to official rules or law.
- Competitor: This realm consists of one competitor or a group of competitors with the same purpose. A competitor typically a person or company who is a rival against others.
- Community: This realm consists of one person or a group of persons with the same purpose. The influence of such realm typically appears in case of extended enterprise. Examples of this realm are non-client, anti-client, or society as a whole.

The RRs are also classified by their control level (CL) for the recruiting organisation. Based on this level of control, the recruitment policies applied in each RR could change. These CLs are derived from the work of Alwazae et al. (2015), as follows:

- No control (NC): If the RR with no control, the realm is not controlled by any organisation. Hence, the recruiting organisation has no ability to set or impose recruitment policies within that realm. However, the policies and mechanisms of this RR can be expected.
- Externally controlled (EC): If the RR is externally controlled, the RR is managed by another organisation or partner. Hence, the

- recruiting organisation has no ability to set recruitment policies within the realm but it can have a service agreement (agreed conditions) by which a set of policies are agreed on.
- Fully controlled (FC): If the RR is fully controlled, the recruiting organisation has the full ability to set or impose a set of recruitment policies within the realm.

When classifying the RRs, two things have to be considered: the TR that can be found in an enterprise network, and their CL (who manages this type of realm). Hence, the classification of RRs can be defined as RR: TR X CL. These specific RRs can be used to describe the different types of contexts in which ERBPs are applied. Table 2 presents the various types of RRs resulting from our classification marked with $(\sqrt{})$.

Table 1: Classification of recruitment realms (RRs).

Type of Realm (TR)	Control Level (CL)		
	No	Externally	Fully
	Control	controlled	controlled
Recruiter	-	√	√
Applicant		V	V
Job Provider		V	V
Qualification	2/	2/	2/
Provider	V	V	V
Regulator	-	$\sqrt{}$	-
Competitor			_
Community	\ \	-	-

The Interest Record

In ERBPs, the interest levels that are applied in all RRs included in a specific context of enterprise form the interest record needed for filling a vacancy. In each RR, there will a set of interest levels which determine the overall interest of that RR to interact for filling a job vacancy. These interest levels are reflected by the recruitment policies adopted in a specific realm and by the corresponding set of actions used in interaction. The recruitment policies applied in each realm are defined in reference to the recruitment problem type (frame) to solve (i.e. interest dimensions as well as their interrelationships and related quality features, see Alamro et al. (2018). The problem types suffered in each realm can vary, but the focus here will be on a set of problems that can be suffered by all RR in common.

Given the definition of recruitment adopted in Alamro et al. (2018) being a set of interactions, the common problems of these interactions are related to: the information exchanged (information dimension); the timeframe of interaction (time dimension); the duration or length of interaction (time dimension); and the medium of interaction (recruitware dimension). For each problem, there are some related recruitment quality features that must be taken into account by all RRs when defining recruitment policies to solve such a problem. For instance, an information-related problem is associated with features such as information adequacy and accuracy; a timeframe-related problem is associated with a feature such as timeliness; a duration-related problem is associated with a feature such as availability; and finally a medium-related problem is associated with a feature such as accessibility.

To establish the interest record for filling a job vacancy in an enterprise context, the recruitment analysts should maintain the interest sets of all RRs included in the context. To maintain the interest set in each recruitment realm, the recruitment analysts will assign a set of appropriate recruitment policies to each realm according to the problems suffered and their related quality features taking into account the dependencies between the problems themselves as well as between RRs in the different levels of abstractions.

The output of interest record is a set of numbers

that represent the interest sets (the set of interest levels and the policies applied) for each RR included in the context. These numbers or interest levels will help recruitment analysts to select a course of recruitment actions that fit to these levels. Moreover, based on these numbers, recruitment analysts can decide whether the ERBP is appropriate or not when reusing.

4.1.3 UML Metamodel for Problem and Threats

Figure 4 shows a UML metamodel for the problem and threats. The problem that the ERBP attempts to solve must address the threats associated with filling a job vacancy and the set of forces that enable those threats. The threats, such as no engagement, withdrawal, and rejection, stop filling of a vacancy and result in some consequences. These consequences should match the threats identified. The forces consist of interest dimensions (recruitware, information, and timing), their elements, and the intervening relationships between these elements. The problem lies in the conflict between these interest dimensions and their elements when the RRs are interacting.

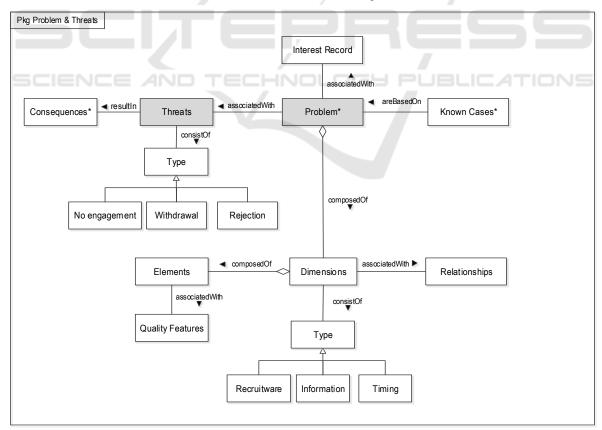


Figure 4: UML metamodel for problem and threats.

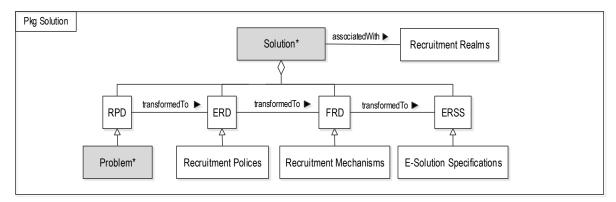


Figure 5: UML metamodel for solution.

4.1.4 UML Metamodel for Solution

In Figure 5, the UML metamodel for solution defines four solution viewpoints. The first is the RPD which is related to the problem environment and model the type of problem to solve. The other three ERD, FRD, and ERSS are related to the solution environment and modelled in three levels of system abstractions.

As can be seen in Figure 5, the RPD is used by the recruitment analysts to capture the problem domain knowledge and then define the enterprise recruitment problem to solve. The ERD is used by the recruitment analysts to define the early requirements of the system without considering of the functional aspects of a process. These early requirements are the recruitment policies that the system solution enforce. The FRD is used by the recruitment analysts to define the functional and operational requirements of the In this viewpoint, the recruitment system. mechanisms and actions that the system should perform based on the predefined policies are captured. Finally, the ERSS is used by both the business and software analysts to define the context and specifications of e-recruitment solution. The four models used in the UML metamodel for solution are instantiated over the same set of RRs in a specific context to build the solution for the enterprise problem.

4.1.5 UML Metamodel for Stakeholders

Figure 6 shows the UML metamodel for stakeholders. The ERBP should provide a qualitative evaluation (set of considerations) of the solution from different stakeholders' perspectives according to the same set of RRs in a specific context. When carrying out the evaluation, the quality features of the Onto-RPD artefact should be used for assessment.

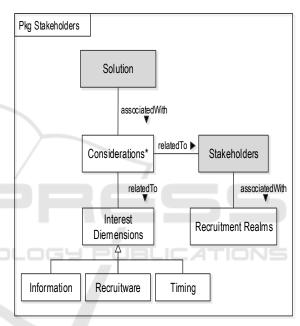


Figure 6: UML metamodel for stakeholders.

5 DEMONSTRATION AND EVALUATION OF ERBP TEMPLATE

In this section, the demonstration and evaluation of the ERBP template will presented.

5.1 Evaluation

The evaluation of the ERBP template was carried out with a focus group consisting of 10 domain experts. In preparing for the meeting, a full package including the ERBP template, the five UML complementary diagrams, and a questionnaire based on the defined requirements along with the instructions of use were

sent to the participants. During the meeting, the ERBP template, the practical problems that the ERBP template was meant to address, and the defined requirements by which this template is assessed were all presented. Each expert was asked to comment on the ERBP template and its elements. The discussion was directed by a facilitator. During the discussion, experts were asked to write down their comments on the contribution of the ERBP template to the requirements prescribed using the templates provided. At the end, they were also asked to add their suggestions and recommendation for improving the ERBP template.

5.2 Results from the Evaluation

The key findings from the evaluation that is centred on the requirements and characteristics of the ERBP template are presented in section 3.2, are as follows:

- Requirement 1: The ERBP template shall consist of a complete set of ERBP elements. Four experts confirmed that the ERBP template covers all of the elements in ERBP. One of them reported "the template is quit full. I can see all key elements included". Another expert suggested some elements to be added to the template such as date, keywords, and technologies used.
- Requirement 2: The ERBP template shall be easy to use for sharing and reuse. Two experts reported that the description of the elements and their relationships are clear and straightforward. However, two other experts stated that the template is very complex to understand particularly interest record and levels. One of them stated that "an example of application is needed". Another stated that reformulation might be needed". These point up the need of applying the ERBP template to some case studies as someone might not be able to estimate the comprehensiveness and easiness of use until the application in real-life cases.
- Requirement 3: The ERBP shall support both the creation of high quality ERBPs and the evaluation of already exiting BPs. According to three experts, the ERBP template could be used for both these purposes. They confirmed that the template represents a good foundation to structure and articulate ERBPs. One expert stated "the template gives a concrete structure for what elements you have to document, and it makes ERBP easier to use". Some experts criticised the template as being hard to use and needs some time and training to do that. Other

experts stressed the need of a methodology by which such ERBP template can be shared and reused.

6 CONCLUSIONS

In this paper, an ERBP template for is designed for a proper documentation of ERBPs. The template was represented using a precise metamodel with five complementary UML diagrams. The findings of the evaluation of ERBP template is encouraging. The future work will focus on applying the ERBP template into real-life case studies to assess its comprehensiveness and usability.

REFERENCES

- Abd Rahman, A.A. Sahibuddin, S. and Ibrahim, S. 2011. A study of process improvement best practices. Information technology and multimedia (ICIM), International Conference on IT & Multimedia at UNITEN (ICIMU 2011) Malaysia, 1-5.
- Ahamed, S., Adams, A., 2010. Web recruiting in government organisations: A case study of the Northern Kentucky / Greater Cincinnati Metropolitan Region, Public Performance & Management.
- Alamro, S., Dogan, H., Cetinkaya, D., Jiang, N. and Phalp, K., 2018. Conceptualising and Modelling E-Recruitment Process for Enterprises through a Problem Oriented Approach. *Information*, 9 (11), 269.
- Alwazae, M. Perjons, E. and Johannesson, P. (2015). Applying a template for best practice documentation. *The 3rd Information Systems International Conference, November, 2-4, Surabaya, Indonesia.*
- Carless, S.A., Wintle, J., 2007. Applicant Attraction: The role of recruiter function, work-life balance policies and career salience. *International Journal of Selection and Assessment*, 15(4), pp. 394-404.
- Buschmann, F., Henney, K., Schmidt, D.C. 2007. Pattern Oriented Software Architecture. *On Patterns and Pattern Languages, vol. 5. Wiley, Chichester.*
- Fouad, A., 2011. Embedding requirements within the Model Driven Architecture. PhD Thesis, Bournemouth University.
- Gartner. 2008. Gartner Clarifies the Definition of the Term 'Enterprise Architecture'. *Gartner research. ID Number: G00156559*.
- Graupner, S. Motahari-Nezhad, H.R. Singhal, S. and Basu, S. 2009. Making processes from best practice frameworks actionable. Enterprise Distributed Object Computing Conference Workshops, 13th IEEE, 1-4 September, 25-34.
- Hanafizadeh, P. Moosakhani, M. and Bakhshi, J. 2009. Selecting the best strategic practices for business

- process redesign. Business Process Management Journal, 15 (4), 609-627.
- Investopedia. 2016. Best Practice. Accessed (2016-07-15) at https://www.Investopedia.com/terms/best_practice
- Jashapara A. Knowledge Management: An Integrated Approach. 2nd Edition. Pearson Education, *Harlow*, Essex; 2011.
- Johannesson P., Perjons E., 2014. An introduction to design science. Springer International Publishing, Switzerland.
- Madia, S. 2011. Best practices for using social media as a recruitment strategy. *Strategic HR Review*, vol. 10, no. 6, pp. 19–24, 2011.
- Mansar, S. and Reijers, H. 2007. Best practices in business process redesign: Use and impact. *Business Process Management Journal, Emerald Group Publishing Limited*, 13 (2), 193-213.
- Molina, A., Medina, V., 2003. Application of enterprise models and simulation tools for the evaluation of the impact of best manufacturing practices implementation. *Annual Reviews in Control*, 27 (2003) 221–228.
- Motahari-Nezhad HRM, Graupner V, Bartolini C. 2010. A framework for modelling and enabling reuse of best practice IT processes. *Business Process Management Workshops*; 2010, p. 226-231.
- Penaranda, N., Mejia, R., Romero, D. and Molina, A. 2010. Implementation of product lifecycle management tools using enterprise integration engineering and actionresearch. *International journal of computer integrated* manufacturing, 23 (10), 853-875.
- Renzl, B. Matzler, K. and Hinterhuber, H. 2006. The Future of Knowledge Management. *Palgrave Macmillan, New York*
- Sharp, H., Rogers, Y., and Preece J., 2007. Interaction Design: Beyond Human-Computer Interaction.
- Simard, C. and Rice, R.E. 2007. The practice gap: Barriers to the diffusion of best practices. In McInerney, C. R. and Day R. E. Ed., Re-Thinking Knowledge Management: From Knowledge Objects To Knowledge Processes, Dordrecht, *The Netherlands: Springer-Verlag*, 87-124.
- Smith, G., 1989. Defining managerial problems: A Framework for Prescriptive Theorizing. *Management Science*, vol. 8, pp. 963-981.
- Stephenson, C. and Bandara, W. 2007. Enhancing Best Practices in Public Health: Using Process Patterns for Business Process Management. In Proceedings ECIS 2007 - The 15th European Conference on Information Systems, St. Gallen, Switzerland, 2123-2134.
- Vallejo, C, Romero, D. and Molina, A. 2012. Enterprise integration engineering framework and toolbox. *International journal of production research*, 50 (6), 1489-1511.
- Vesely A. Theory and methodology of best practice research: A critical review of the current state. *Central European Journal of Public Policy*, vol. 2; p. 98-117.
- Zachman, J., 2008. The concise definition of the Zachman framework, link: https://www.zachman.com/about-the-zachman-framework.