Abstract. This study aims to conduct a systematic review of the existing literature related to strategic planning in public organizations, especially in the competency-based human resource development section. The background of this research is related to the change of position for state civil servants which is a policy of President Joko Widodo, as a way to appreciate the ability and competence of civil servants. Therefore, the authors chose research using the Systematic Literature Review (LSR) method with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) rules using databases from Google Scholars and Crosreff. After conducting automatic screening through Harzing’s Publish or Perish and then proceeding with manual screening by the author, it was found that 10 studies were used consisting of 8 journals, 1 Proceedings and 1 book chapter. The result of the research is that strategic planning for human resource development focuses on its integration with the organization’s main strategy so that core competencies can be determined, developed and maintained for the organization. These core competencies include at least four important aspects of personal competence: Knowledge, Skill, Ability, and Other Characteristics (KSAO). In addition, the right strategic planning for competency-based human resource development is proven to help organizations gain competitive advantage that lasts relatively long because it is related to human capital.

Keywords: Systematic Literature Review · Strategic Planning · Human Resources Development · Competency

1 Introduction

This study is a systematic literature review of research on all topics about strategic planning and competency-based human resources. The aims of the study is to know the relation between this two topics especially on public sector organization. Competency-based HR development is carried out in order to provide results in accordance with the strategic goals and objectives of the organization with established work standards [1]. At the same time, there is evidence that organizational change has an impact on employee competency development patterns and as a result has created employee resistance to change [2]. Changes in organizational structure affect the nature of careers [3,
The same thing also happened domestically, such as research by Insani, Warsono and Kismartini et. al. [5], which found that organizational change must pay attention to human resource factors which include organization, resources, development, rewards, management and employee relations which will have an impact on employee and institutional performance. Because of the impact, individuals/employees in the organization can have resistance to changes that occur.

The government carried out bureaucratic reforms at central and regional agencies by removing some supervisory and administrator positions and replacing them with functional positions through PermenPANRB 17 of 2021 and Permen PANRB 25 of 2021. Most recently, in order to regulate a new work system in government organizations, Permen PANRB was also issued Number 7 2022 concerning the Work System in Government Agencies.

The new functional officers are expected to have better competence than structural officials [6]. Meanwhile, until now, competency development is still in the experiment. The State Administration Institute formulated 10–20-70, where 10% of development was carried out using formal learning methods, 20% through social learning, and 70% through experiential learning (lan.go.id).

The author hopes that this research can fill the gap from previous research by knowing what the correlation between major research topics is strategic planning and human resource development. In addition, research is also conducted to find out what is the focus of the subject, namely strategic planning for human resource development, especially in public organizations in various countries in the world.

1.1 Strategic Planning

Bryson [7], who defines strategic planning as a “deliberative, disciplined approach to producing fundamental decisions and actions that shape and guide what an organization (or other entity) is, what it does, and why”. From this understanding, it can be understood that strategic planning has an in-depth and measurable nature of consideration in determining the direction of the organization. Other experts such as Stoner [8], define strategic planning as the process of selecting organizational goals, determining the policies and strategic programs needed to achieve specific goals in order to achieve the goals, and determining the methods needed to ensure that the policies and strategic programs are implemented.

Within the overall framework of strategic planning, there is a main framework as proposed by Bryson and Aslton [9], which can be a guide on how strategic planning works, which is called ABC’s theory of Strategic Planning (Fig. 1).

In the implementation of competency-based human resource strategic planning, integration between values in the ABC of Strategic Planning is absolutely necessary. As stated by Bryson [7], that in order to achieve the expected ideal final conditions, organizations must find out everything that is included in ABC and make it integrated as a process.
1.2 Human Resources Strategic Planning

According to Rothwell and Kazanas [10], human resource planning focuses on analyzing the organization’s HR needs when organizational conditions change, and then providing strategies to help respond proactively to these changes over time. With this HR planning, it is hoped that the organization can properly prepare the required employees in terms of number, competence, and time.

This HR planning process becomes strategic when efforts are made to meet the supply and demand for HR by involving programs within the existing organization. In this regard, various HR experts such as Lengnick Hall [11], Lam and White [12] and Armstrong [13] agree that the use of strategic planning in human resources in organizations has a tendency to help organizations outperform competitors and create competitive advantages.

1.3 Competency

Woodruffe [14], defines competency as “the set of behavior patterns that the incumbent needs to bring to a position to perform his or her tasks and functions with competence”. The approach taken by Woodruffe in identifying competencies is the effective completion of tasks and functions. Another opinion that is one of the main references is Spencer [15], which defines competence as “underlying characteristics of an individual that is causally related to criterion-referenced effective and or superior performance and situation”. Underlying characteristic means that competence is a fairly deep and enduring part of
a person’s personality that can predict behavior in various variations and situations. Causally related means that competence can predict behavior and performance. While criterion-referenced means that competence can predict a job or task performed well or poorly which is determined by specific criteria [15].

In addition, there is also the opinion of Armstrong [13] which states the following competencies:

“Competence refers to the behavioral dimensions of a role-the behavioral required of people to carry out their work satisfactorily. As defined by Armstrong and Mullis [13], they constitute the behavioral characteristic which can be demonstrated to differentiate high performers in a given role under such heading as achievement, drive and concern for order.”

Based on this statement, it can be concluded that the characteristics of employee behavior can be seen from the resulting performance and satisfactory task completion performance.

From various expert statements that define competence, the authors can conclude that the notion of competence is the ability to complete tasks and self-development by individuals/employees in organizations, both good and bad, with criteria that have been specifically determined.

In the scope of personal competence development, most experts agree to use KSAO’s dimensions [16]. KSAO’s own consists of Knowledge, Skills, Abilities, and Other Characteristics. The object of this study should be used as a study of public organizations in developing competence for all employees. The following is an explanation of the dimensions of KSAO’s personal competence:

**Knowledge.** According to Wikipedia, Knowledge is defined as “a type of belief that is distinct from opinion or guidance by virtue of justification.” Another meaning of knowledge according to the oxford dictionary is “acts, information, and skills acquired by a person through experience or education; the theoretical or practical understanding of a subject”. A more specific understanding of this dimension is conveyed [16], which is an experience and impression that is internalized in the mind of an apparatus resource for the use of his senses in understanding. Knowledge itself according to Blakeley [17], is divided into three categories, namely knowledge creation, knowledge absorption, and knowledge application.

**Skills (Ability or Proficiency).** In the Oxford Dictionary, Skills is defined as “the ability to do something well; expertise.” Dunette defines skill as the capacity needed to carry out several tasks which are the development of the results of training and experience gained. This understanding of Dunette emphasize self-development in order to improve skills.

The discussion of the skills themselves will eventually lead us to the classification of the skills themselves. Experts such as in Saleh [16] and Laker and Powell [18], agree to divide skills into two categories, namely soft skills and hard skills. Furthermore, Laker and Powell explained that hard skills, hard skills (technical) “represent a theoretical practice, a body of work that has not been guided by theory but rather by existing practice”. Meanwhile, soft skills are “intrapersonal skills such as one’s ability to manage
oneself as well as interpersonal skills such as how one handles one’s interactions with others.”

**Abilities.** Saleh et al. [16], define abilities as a condition of a person’s ability to apply all of their specific and contextual expertise. It was further explained that abilities were also divided into soft abilities and hard abilities. If the skills dimension is used as an analysis and the optimal level of ability, the abilities dimension is used as an analysis of the minimum actions that can be carried out without considering certain indicators.

**Other Characteristics.** According to Saleh et al., [16], other characteristics are other factors or dimensions that can positively support an apparatus resource in carrying out their work duties, both routine and critical or urgent. This definition has a very broad definition of characteristics. Therefore, there are limitations for other characteristics as stated by Patricia Patton in Sinambela [19], which consist of proactive, progressive, positive, and passionate principles.

## 2 Research Methods

The research method used by the author in this study is Systematic Literature Review (LSR) using the Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA) rules. Systematic Literature Review according to Cochane Collab [20], is “a review of a clearly formulated question that uses systematic and explicit methods to identify, select, and critically appraise relevant research, and to collect and analyze data from the studies that are included in the reviews”. The character of a systematic literature review [21] is methodical, comprehensive, transparent and replicable. The development of the research world using systematic literature reviews compared to traditional literature reviews is to reduce bias and subjectivity that the author may have. The method used by the author in conducting a systematic literature review refers to the instructions Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA) are:

- Eligibility Criteria
- Defining Information Sources
- Study Selection
- Data Collection Process
- Data Item Selection

### 2.1 Eligibility Criteria

In order to form competent scientific work, it is necessary to determine eligibility criteria to determine the standards used in a study.

The author determines the Inclusion Criteria (IC) by setting the following standards:

**IC1:** Paper is original and can be accessed by the author.

**IC2:** Research that focuses on competency development in public sector workers/employees and strategic planning of public sector organizations.

In order to narrow the search and ensure research standards, papers are required to be original and easy to access. In addition, so that research can be relevant to current
conditions, 20 years is set in this research so that research is expected to provide an element of novelty to science.

In addition to determining inclusion criteria, research using the Systematic Literature Review method also determines exclusion criteria so that research can focus on relevant studies. The following are the Exclusion Criteria (EX) set by the author:

EC1: Paper that contains discussion material but only focuses on the private sector.
EC2: Paper publication is too long (more than 20 years).
EC3: Comes from sources that are not credible or have not been reviewed by other researchers.

2.2 Defining Information Sources

In the research conducted by the author, in order to obtain precise results and objective data, the author uses the help of the search system Harzing Publish And Perish Windows GUI Edition (harzing.com) Version 8.2.3944. The use of this application is used to make it easier for authors to find and sort out the journals as a whole before selecting the journals. Meanwhile, the search engines used are sourced from Google Scholars and CrossRef. Both are used in accordance with IC1 where the paper can be accessed by the author.

The database of the paper obtained by the author himself is very varied from various sources of study repositories including Elsevier, Emerald, Wiley Interscience, SAGE, and so on.

2.3 Study Selection

The author conducts a selection study by doing several phases, namely:

- Conduct a search for papers relevant to the discussion through a predetermined search engine (Google Scholars and Crossref) using the Harzing’s Publish or Perish application with predetermined keywords namely “Competency”, “Human Resources”, “Public Sectors” and “Strategic Planning”.
- Sort the search results paper automatically using three criteria in the Harzing’s Publish or Perish application, namely “Cites” which means the total number of citations carried out using the journal, “Cites Per year” which means the number of journals citation in a year, and “Rank” which means the order in which the search matches the existing journal. All three are used to make it easier for authors to determine a credible journal to use and the suitability of the journal with existing keywords.
- Explore and select titles that match the Eligibility Criteria (IC).
- Skim reading or the entire appropriate paper and then re-eliminate the paper that is considered not in accordance with the topic of discussion.
- Scan existing article references to find related studies.

2.4 Data Collection Process

Data collection is done manually by taking into account several conditions, namely the type of article, the name of the journal, the year, the topics discussed, the suitability of keywords, the country and the methodology used. If there are articles that are considered relevant, they will be discussed together with other articles.
2.5 Data Item Selection

- The information that the author uses from each article consists of various things such as:
- Competency development in public organizations
- Opinions, theories, guidelines and various factors that are included in the scope of human resource management, competence and strategic planning
- Methods of developing competence in various countries, especially public organizations

3 Results

3.1 Study Selection

Based on the study selection method described previously, the authors obtained 999 papers from Google Scholar and 300 papers from Crossref. After screening articles based on keywords, suitability rankings and the number of citations carried out by other researchers, the authors get a significant reduction in journals, especially related to accessible papers, then research carried out only in the public sector, as well as research that must include resource development human resources, competence and strategic planning. In addition, screening was also carried out with the risk of duplication of previous research. Based on these selections, there were only 42 papers that met the criteria. Then from the selected papers, the authors made a manual selection by reading quickly and looking for research that was in accordance with the author’s research topic and carried out before 2000. As a result, there were 10 studies that were selected to be used in this study (Fig. 2).

3.2 Study Characteristics

This section describes each of the studies cited and the characteristics of these studies. There are 10 studies that meet the criteria and are used as research material, with 6 studies that are closely related to Competency, with 8 studies that discuss more broadly, namely the concept of Human Resources (HR), then 4 which contain Strategic Planning and Strategic Management. It can be seen here that there are several articles that intersect with each other in the discussion of the topic under study.

With the selected studies, there are restrictions on the year of publication in order to maintain scientific relevance and novelty. Starting from a study from 2006 which discussed personal competencies, namely An Empirical Method of Determining Employee Competencies/KSAOs From Task-Based Job Analysis by Goffin and Woycheshin to the most recent in 2019 namely Competencies for effective public middle managers. by Sudirman et al. Based on this, it can also be seen that there is a polarization of the selected studies, using sources from within and outside the country. More details can be seen in the following Table 1:

The difference from the country of origin of the study is important because of the need for input from various models of competency development both in developed and developing countries. This is because of course there are differences that can ultimately enrich the content of the research conducted.
Fig. 2. PRISMA 2020 flow diagram.

Table 1. Study sources by country.

<table>
<thead>
<tr>
<th>Country</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>2</td>
</tr>
<tr>
<td>United States of America</td>
<td>2</td>
</tr>
<tr>
<td>India</td>
<td>2</td>
</tr>
<tr>
<td>Canada</td>
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</tr>
<tr>
<td>United Kingdom</td>
<td>1</td>
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<tr>
<td>Slovakia</td>
<td>1</td>
</tr>
<tr>
<td>German</td>
<td>1</td>
</tr>
</tbody>
</table>

3.3 Result of Synthesis

From the various studies that the authors have collected from the research, it can be stated several things related to the theory used, namely personal competence consisting of KSAO’s (Knowledge, Skill, Ability and Other Characteristics). As in the research by
Richard D. Goffin and David Woychenshin [22], which states that the First Line Supervisor (FLS) has six main important components consisting of detect and resolve problems and conflicts, participatory influence, Understand rules and regulations and other written material., and communicate in writing, monitor and control and improve staff performance, schedule and prioritize, and develop staff (includes recognizing strengths and weaknesses). These things are part of the details of KSAO’s that are expected to be in FLS.

Other studies also point to the importance of core competencies and their development in order to achieve competitive advantage. As research in Garavan [23], which explains that there are four dimensions of core abilities, namely: knowledge and skills, physical and technical systems, managerial systems of development and education, and organizational values and norms. If you pay attention, this concept is in line with and has the same core as KSAO’s existing concept. Of course, for public organizations there are various differences in competencies that are unique to the expected competitive advantage, but at least the core personal competencies of employees have been previously possessed.

Of course, this cannot be achieved suddenly. Therefore, a strategic planning function of human resources is needed that helps organizations to be able to get employees with the necessary competencies. In line with this, Clardy [24], said that the purpose of implementing HR strategic planning is to obtain planned learning in KSAO’s aspects that are needed in the future by organizational stakeholders (including employees, customers, producers and so on). In various literatures concerning human resource strategic planning, the concepts offered must be evaluated in relation to organizational strategy, HRD systems, policies and practices because of course it will have an impact on the overall organizational management process.

For example, the pattern of competency development in the Public Service Canada organization that applies the Competency-Based Management method with internal resources based on the KSAO’s method [25]. This is in line with research conducted by Patil, Shet, and Chandawakar [26], which proves that Competency Based Management is closely related to superior performance which in turn encourages increased organizational effectiveness.

Regarding the performance of individuals, there is a study conducted by Sudirman et al. [27], which can distinguish competencies that are the priorities of middle managers in organizations which ultimately distinguish those who have superior performance and average performance. From the research presented by Sudirman, the dominant competencies shown by superior performance middle managers are achievement orientation (90%), oral communication skills (85%), organizational skills (85%), leadership (77%), information seeking (73%), analytical thinking (69%) and planning (63%). Meanwhile, in the average performance of middle managers, the dominant competencies are oral communication (84%), organizing (78%), financial management (66%), information seeking (56%), analytical thinking (53%) and planning (53%). The biggest gap that distinguishes the personal competencies of superior and average middle managers is achievement/achievement orientation (58%), leadership (52%), persuasion (33%) and innovation (29%). From this research, it can be seen that there are differences in orientation of competence between the two research subjects.
Therefore, of course it is also necessary to develop human resources in organizations by not only paying attention to academic abilities but of course also needing development in the emotional sector so that there is a balance. Artini [28], said that in human resource management so that employee performance can be maximized, reward and punishment are also a necessary unit such as carrying out payments in accordance with employee competencies as well as increasing positions as an effort to appreciate competent human resources so that their performance can also increase. In addition, it is also necessary to analyze career patterns based on personal competence and carried out objectively.

The balance in the pattern of human resource development, especially in the aspect of personal competence of employees is also in line with the research conducted by Skorkova on the public sector in Slovakia. Skorkova [29], uses the Holistic Model of Competency introduced by Porvaznik [30], which consists of social maturity, application skills and knowledge ability to analyze public sector employees. Of these three things, in Slovakia there is a tendency for the development of social maturity to be the least needed by employees and knowledge ability to be the most needed. Furthermore, according to Skorkova, this has also resulted in a lack of training related to social maturity such as preventing corruption in public organizations. The suitability of these three competencies according to Skorkova is very important to run together without a larger portion of one another.

The balance emphasized by Skorkova in his research is also supported by other studies such as research by Nagel [31], called the theory of metacompetence of organization. This theory explains that there must be a balance between innovation and organizational stability in the HR development planning that is carried out. In addition, Nagel also sees that improving organizational conditions must also pay attention to four aspects, namely the human perspective, the economic perspective, the operational perspective, and the risk perspective. If the changes made mainly in terms of HR have a positive impact, it is better viewed from the four perspectives, then the changes are worthy of inclusion in organizational planning.

In terms of public organizations, research conducted by Boyne and Meier [32], in Texas found that strategic planning in human resource development has been proven to improve organizational performance, apart from beneficial influences from the external side of the organization such as improving environmental conditions such as a quality workforce, to improvement of infrastructure. Of course, favorable conditions that come from external to the organization cannot be planned by the organization, so the main focus on the organization’s internal planning, especially concerning the development of competency-based human resources, must be prioritized. In the strategic planning process for competency development, several roles that can be carried out by planners as stated by Clardy [24] include:

- Provide a source of knowledge regarding organizational strategy and core competencies.
- Provide learning opportunities to evaluate the potential of competency-based strategies.
- Determination of core competencies through competitive analysis.
• Analysis and assessment of strategic decisions.

The role played by the formulator of this policy is expected to create an integration between the organization’s strategy and the development of human resources in the organization’s internal. This is in line with the research of various experts in the field of HR such as Schuler [33], Bryson [7] and Becker et al. [34] which outline similarities in the integration of HR strategic planning with organizational strategy. Actually, in a broader concept such as strategic management of HR development (SHRD) this also happens. In fact, according to Garavan [23] this adjustment starts from four levels, starting from the global environment and then focusing more on the organizational context such as strategy, structure, culture and leadership patterns, then also relates to job values and uniqueness offered, only to individual competencies, expectations, and career development.

4 Discussion

This research is very limited only regarding competency-based human resource development planning in public sector organizations, therefore this research may not be used as a reference for researchers who do in the private sector. In addition, there are limitations of the author in the study because it only uses free sources that can be accessed by the author. This may cause the research conducted to have a lack of more valid references. In addition, this study only uses the search method using the Google Scholars and Crossref search engines with the consideration that these searches are available free of charge to the author.

Of course, with all its limitations, further research is needed that can complement the research conducted by the author. Such as research involving public sector organizations or can involve public or private sector organizations. In addition, the limited references that the author can get related to research topics, especially domestically, are a problem and it is hoped that this research can also contribute to adding to the treasures of research related to strategic planning of human resources in the public sector.

From the various studies collected, it is proven the importance of strategic planning in order to create a long-lasting competitive advantage, especially for public organizations. Although public organizations themselves are mostly monopolies, the superior competence possessed by public sector employees can help organizations to have better performance in order to improve services for the community. The positive and negative effects of the environment as in Boyne and Meier’s [32] research are not a significant reason if competency-based human resource development planning has been carried out properly, so as to minimize negative impacts and optimize positive impacts for public sector organizations.

5 Conclusion

Based on the studies that the authors have collected and used as research references, there are several main conclusions that the authors can summarize in order to increase understanding regarding the topic of this research.
First, strategic planning regarding the development of human resources as stated by Clardy [24] requires the role of managers in public organizations to be applied to the organization’s core strategy, especially regarding the competencies expected for public organizations. Personal competence in accordance with the KSAO concept has also been proven to increase competitive advantage for public organizations in the long term as happened in research Bonder, Bouchard, and Belemare [25], conducted at Service Canada organizations or Boyne and Meier [32] conducted in public school in the state of Texas.

Second, managers in public organizations must understand what is actually expected by knowing the initial conditions of the organization, the expected final conditions, and how to achieve them. This certainly requires the role of human capital through human resource strategic planning. Because it involves all stages of management, at least in planning, it is necessary to first understand how the core competencies are expected to exist in employees, then maintain these competencies and develop them so as to create a competitive advantage for public organizations.

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