## **1. Introduction**

The purpose of this document, based on the reference standard: ABNT NBR 14724:2018, is to assist authors with the format to be used in business cases submitted to ENEGEP 2022. This document is written according to the template indicated for business cases, thus it serves as a reference while commenting on the various aspects of formatting. There have been small changes in its format, so we suggest that you read it carefully.

Observe the instructions and format your business case according to this pattern. It is recommended that you use the pre-defined formatting styles in this document. Simply copy and paste the text from the original directly into a copy of this document.

Remember that correct formatting is essential for the proper evaluation of your work. Business cases outside the formatting will be removed from the evaluation process.

## **2. Specific Instructions for Business Cases**

The objective of creating this category is to attract and give visibility to the practical applications of technical and scientific knowledge and its impacts on the increase of productivity of the national industry. Therefore, the aim is to bring together professionals and researchers in Production Engineering to identify both the challenges (problems) and the solutions and results that the organizations are achieving.

In this sense, the business cases will have a different format from the scientific papers that are traditionally submitted, evaluated and published in ENEGEP. The summary of the business cases will be structured to facilitate reading, consultation and future systematic reviews by the community. Another important point is the need to make explicit the organization/company where the study was conducted. The following structure is suggested for the business cases:

* Contextualization and Problem Definition

Contextualize the organization/company and the area/process/organizational unit where the problematic situation was present. Try to establish the problematic situation that was sought to solve justifying its relevance.

* Problem Analysis

Express that clearly concepts, models, techniques or tools were used to analyze and scale the problematic situation (enter the bibliographic references or software used). Qualitative or quantitative approaches can be used. Whenever possible, try to scale the problematic situation in technical, economic, environmental or social terms. Try to explain whether the problematic situation is recurrent and if it would tend to worsen in time. If applicable, briefly report previous attempts to resolve the problem.

* Implementation and Solution of the Problem

Apresente também que conceitos, modelos, técnicas ou ferramentas foram utilizadas para solucionar a situação problemática (insira as referências bibliográficas ou softwares utilizados). Exponha e justifique as ações que foram realizadas para implementar a solução. Discuta os aspectos qualitativos considerados importantes para que tanto a implementação da solução quanto a sustentação dos resultados sejam alcançadas. Quando aplicável, explicite as soluções alternativas que foram consideradas e justifique a escolha da solução implementada.

* Results

Present the results and impacts achieved in the technical, economic, environmental and social dimensions. It is not necessary to impact all dimensions, so expose those where the results occurred. Critically evaluate decision-making, development, and implementation of the solution. When possible, evaluate external factors that contribute to explaining the results of the solution. On the one hand, whenever possible, use quantitative methods and techniques to assess the magnitude and significance of the results. On the other hand, seek to clearly highlight the meaning of the results for the organization, employees and other interested parties. Explain the relevance of the results to all parties involved.

* Lessons Learned

Explain the lessons learned in the process of defining, analyzing, and solving problems. What other aspects did you not consider? What are your recommendations for professionals who may try to replicate your solution? Also, explain what aspects you would improve for the solution to the problematic situation.

**3. General formatting**

This text presents only the body of the article. Therefore, it should not contain Title, Author, Summary, and Keywords. These elements will be inserted later, from data requested during the submission of the file by the event site. The file authoring data must be blank. See in your text editor how to remove this information. The full business case should not exceed 4,000 (four thousand) words and the file size should not exceed 1 (one) Mb. Tables may be treated as figures, not to count words, but the quality of them is your responsibility. Try to treat images and tables so that they do not leave your file too large.

The margins should be: upper and lower 1.2 cm and right and left 2.5 cm. The page size should be A4, unpredictably. Please check this aspect with special care.

The body of the business case should be submitted in its final version, so remember to keep the header information and save it in Word at the end. No changes will be allowed after the submission deadline has ended. Following, step by step, the formatting details will be specified.

Please note: Foreign language words must be written in italics.

**4. Section titles**

The titles of the work sections should be positioned to the left, in bold, numbered with Arabic numerals (1, 2, 3, etc.) and only with the first initial capital. You should use text with Times New Roman font, size 12, and place period in the titles. Between the headings, one must insert a blank line to maintain the formation of spacing 1.5 between the lines in bold.

**4.1. Subtítulos das seções**

The subtitles of the work sections should be positioned on the left, in bold, numbered with Arabic numerals in subtitles (1.1, 1.2, 1.3, etc.) and only with the first initial capital. Text with Times New Roman font, size 12, in bold should be used. Between the subtitles of the sections, no blank line is included, and the formation of spacing 1.5 is maintained between the paragraph before and after the subtitle.

**5. Body of text**

The body of the text should start immediately below the title or subtitle of the sessions. The text body uses times new roman font, size 12, justified on right and left, with 1.5 spacing between lines and paragraphs.

Footnotes: Footnotes should not be used.

In the case of using lists, you should use the bookmark that appears below:

* Lists should be justified on the right and left, in the same way as text body snippets;
* Use semicolons to separate items from a list, except for the last item that must have an endpoint;
* If a list is used, keep the spacing 1.5 between the lines;
* The "List" style can be used so that the predefined formatting is correctly employed.

It is also possible to use points, which follow the following indications:

1. Each point item must be alphabetically ordered by lowercase letters followed by parentheses, as in this example;
2. Use semicolons to separate the points, except for the last item that must have an endpoint;
3. The list of points maintains the spacing of 1.5 between the lines;
4. The "Point" style in this document can be used for the automatic application of the correct formatting of points.

In the case of a new list of points, the alphabetical list shall be restarted. Here's how to do this in your editor:

1. A new point thus resumes from the letter a);
2. Point items are separated by semicolons;
3. The last point item may end with the point, depending on how you follow the writing of the text.

**6. Illustration formatting**

The illustrations must have headings located at the top preceding the word that designates it (table, figure, layout, flowchart, image, etc.), followed by the order number of occurrences in the text, in Arabic numerals and indent, which is used for separation of the title.

The title of the table should indicate the nature and geographical and temporal scope of the numerical data, and should not contain abbreviations, only a full description in a clear and objective way.

The sources consulted are mandatory, even if they are of the author's own production, they must be located at the bottom containing notes and other information necessary for their understanding (if applicable).

These illustrations, as well as their respective titles and sources consulted, should be centred on the page (see examples in Figure 1 and Table 1). One should use Times New Roman font, size 10, centralized and do not lead endpoint. Use the suggested "Figure" or "Table" styles as described below. Keeping the spacing of 1.5 lines.

Important: Illustrations should be called with their numbers in the text and the use of objects "floating over text" should be avoided. Instead, the illustrations should be inserted "aligned with the text". See in your text editor how to do this.

Figure 1 - Example of figure


Fonte: Adaptado de Mays *apud* Greenhalg (1997)

|  |  |  |
| --- | --- | --- |
| Table 1 - Table Example**Item** | **Quantidade** | **Percentual** |
| Teoria social | 22 | 7,9% |
| Método | 34 | 12,3% |
| Questão | 54 | 19,5% |
| Raciocínio | 124 | 44,8% |
| Método de amostragem | 33 | 11,9% |
| Força | 10 | 3,6% |

Fonte: Adaptado de Mays *apud* Greenhalg (1997)

**7. Submission and classification of business cases**

Business cases can be submitted in Portuguese, Spanish and English.

If the limits presented in section 2 are respected, they will be considered as proposed for the XL ENEGEP and will therefore follow their evaluation process. Approved business cases will be published in the Event's Anais.

It is important to note that an unlimited number of business cases may be submitted, but a maximum of 6 (six) business articles/cases may be approved by the author (regardless of which authorship relationship), with the highest scoring business articles/cases worth.

**8. Acknowledgments**

They can be inserted both at the beginning of the text and just before bibliographic references. Due to the rule that makes changes in business cases submitted after the submission process ended, we suggest that possible support to be received be inserted into the body of the business case at the time of submission.

**8. Citações e formatação das referências**

According to So-and-so (2011), correctly quoting the literature is very important.

The citation of authors throughout the text is made in lowercase letters, while the citation of authors in parenthesis at the end of the paragraph should be made in capital letters.

Quoting excerpts from other authors' works, without properly referencing, can be framed as retelling (FULANO; BELTRANO, 2012).

For references, at the end of the business case, you must use text with Times New Roman font, size 10, spacing 1.5 between lines, and the references are separated by a blank line, exactly as it appears in the random references included below. Unlike this illustrative example, only authors used in the text should be cited in the references and the references should contain all the authors mentioned in the text.

References should appear alphabetically and should not be numbered. All references mentioned in the text, and only these, should be included at the end, in the References section.

**REFERENCES**

References are aligned only to the left margin of the text and in order to identify the document, separated by each other, maintaining 1.5 spacing between lines.

AZEVEDO, Dermi. Sarney Convida Igrejas Cristãs para Diálogo sobre o Pacto.**Folha de São Paulo**, São Paulo, 22 out. 1985. Caderno econômico, p. 13.

OTT, Margot Bertolucci. **Tendências Ideológicas no Ensino de Primeiro Grau.** Porto Alegre: UFRGS, 1983. 214 p. Tese (Doutorado) – Programa de Pós-Graduação em Educação, Faculdade de Educação, Universidade Federal do Rio Grande do Sul, Porto Alegre, 1983.

MELLO, Luiz Antonio. **A Onda Maldita**: como nasceu a Fluminense FM. Niterói: Arte & Ofício, 1992. Disponível em: <http://www.actech.com.br/aondamaldita/ creditos.html> Acesso em: 13 out. 1997.

SCHWARTZMAN, Simon. Como a Universidade Está se Pensando? In: PEREIRA, Antonio Gomes (Org.). **Para Onde Vai a Universidade Basileira?** Fortaleza: UFC, 1983. p. 29-45.

SAVIANI, Demerval. A Universidade e a Problemática da Educação e Cultura. **Educação Brasileira**, Brasília, v. 1, n. 3, p. 35-58, maio/ago. 1979.

**APPENDIX**

It is suggested that in business cases they do not contain attachments. If they are essential, the annexes should come to the end of the work. It should be noted that the complete work, including bibliographic references and attachments, should not exceed 4,000 words and 1Mb.