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Soft Skills as a Key in the Technical Assistance Sector

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Abstract: This study presents a service model based on socio-emotional skills for the after-sales department of a specific organization. The research, conducted over a year, aimed to demonstrate the importance of these skills in creating a supportive and motivating work environment and their direct impact on generating income and profits. The model was implemented in the technical assistance sector of a company located in the northern plateau of Santa Catarina, serving as a case study. To support the theoretical framework, a Systematic Bibliographic Review (RBS) was conducted between 2017 and 2022, focusing on the most relevant themes related to the study. The research involved various activities, including daily practices of active listening to provide comfort to customers in need of technical assistance. Additionally, specialized lectures on communication were organized to address theoretical aspects of socio-emotional skills. The results of the study were measured through customer feedback and cost savings. The implementation of the model led to increased customer satisfaction and more efficient resource allocation. Overall, this research highlights the significance of socio-emotional skills in improving both the work environment and the financial performance of organizations.

Keywords: Technical Assistance, Soft skills, Industry, Organizational Behavior.

Competências Socioemocionais como Diferencial Competitivo em Setor de Assistência Técnica

Resumo: Este estudo apresenta um modelo de serviço baseado em habilidades socioemocionais para o departamento pós-venda de uma organização específica. A pesquisa, realizada ao longo de um ano, teve como objetivo demonstrar a importância dessas habilidades na criação de um ambiente de trabalho acolhedor e motivador, bem como seu impacto direto na geração de renda e lucros. O modelo foi implementado no setor de assistência técnica de uma empresa localizada no planalto norte de Santa Catarina, servindo como estudo de caso. Para embasar o referencial teórico, foi realizada uma Revisão Bibliográfica Sistemática (RBS) entre 2017 e 2022, abordando os temas mais relevantes relacionados ao estudo. A pesquisa envolveu diversas atividades, incluindo práticas diárias de escuta ativa para oferecer conforto aos clientes que precisavam de assistência técnica. Além disso, foram organizadas palestras especializadas em comunicação para abordar aspectos teóricos das habilidades socioemocionais. Os resultados do estudo foram mensurados por meio do feedback dos clientes e da economia de custos. A implementação do modelo resultou em maior satisfação dos clientes e alocação mais eficiente de recursos. No geral, essa pesquisa destaca a importância das habilidades socioemocionais na melhoria tanto do ambiente de trabalho quanto do desempenho financeiro das organizações.

Palavras-Chave: Assistência Técnica, Competências Socioemocionais, Indústria, Comportamento Organizacional.

Habilidades Socioemocionales como Diferencial Competitivo en el Sector Asistencia Técnicae

Resumen: Este estudio presenta un modelo de servicio basado en habilidades socioemocionales para el departamento de posventa de una organización específica. La investigación, llevada a cabo durante un año, tuvo como objetivo demostrar la importancia de estas habilidades para crear un entorno de trabajo acogedor y motivador, así como su impacto directo en la generación de ingresos y beneficios. El modelo se implementó en el sector de asistencia técnica de una empresa ubicada en la meseta norte de Santa Catarina, y se utilizó como estudio de caso. Para respaldar el marco teórico, se realizó una Revisión Bibliográfica Sistemática (RBS) entre 2017 y 2022, abordando los temas más relevantes relacionados con el estudio. La investigación involucró diversas actividades, como prácticas diarias de escucha activa para brindar comodidad a los clientes que necesitaban asistencia técnica. Además, se organizaron conferencias especializadas sobre comunicación para abordar aspectos teóricos de las habilidades socioemocionales. Los resultados del estudio se midieron a través de la retroalimentación de los clientes y el ahorro de costos. La implementación del modelo llevó a un mayor nivel de satisfacción del cliente y una asignación más eficiente de recursos. En general, esta investigación destaca la importancia de las habilidades socioemocionales para mejorar tanto el entorno laboral como el desempeño financiero de las organizaciones.

Palabras clave: Asistencia Técnica, Habilidades Socioemocionales, Industria, Comportamiento Organizacional.

INTRODUCTION

Within the technical assistance sector, the workers usually encounter situations that demand conflict intermediation. After all, one normally seeks help from this sector when a purchase of a product or service does not conform to the expectations.

The term "soft skills" is used to describe a set of characteristics related to interpersonal skills (CAMPOS, 2019). Continuing learning in technical skills through academia or professionally helps to keep one updated. However, they alone do not guarantee employability. Soft skills are necessary for daily work in the labor market (CAMPOS, 2021; KOHLBECK, 2021).

Customer service requires a constant synergy between multiple variables in the process (FERREIRA and MENDES, 2001) and in the technical assistance sector this can be very delicate.

Competitive companies seek to improve their services to meet and go beyond customers' expectations. Customers satisfaction is directly related to their fulfillment feeling which will be used to evaluate the service or product (URDAN and ZUÑIGA, 2001).

All professionals that work with customer service, whether direct or indirectly, in person or online, need soft skills (CAMPOS, 2021; KUMAR, 2022), and the development of such skills in the technical assistance sector is extremely important to avoid misunderstandings. According to Campos *et al.* (2022) and Padilha *et al.* (2021), knowing how to listen is half of the



way to a good customer service. Moreover, willingness to receive feedback and criticism and resilience to improve one's actions is key for employability in today's world.

Therefore, the main objective of the present work is to demonstrate how important soft skills are to improve a company's revenue and to create a pleasant work environment. This also helps increasing work quality in general and improving interpersonal relationships among collaborators.

For this purpose, the work accompanied the daily routine of the technical assistance and after-sales sector of a company specialized in the manufacturing and installation of machines, parts, and accessories for specific industrial use.

After the customer service of the company had been evaluated, the study proposed the implementation of a new practical strategy of customer service using soft skills to help the technical assistance sector to achieve its goals and increase its revenue.

According to the provided text, the authors do declare the objectives of the study in the introduction and describe what they will do during the study. The main objective of the study is to demonstrate the importance of soft skills in improving a company's revenue and creating a pleasant work environment. The authors implemented a new practical strategy of customer service using soft skills in the technical assistance sector of a company. They conducted a systematic bibliographic review to support the theoretical framework and applied the study as a case study by implementing routine processes such as active listening and specific processes such as lectures with a communication professional. The results were achieved through more satisfied customer reports and resource savings.

Literature Review

The development of this study arises from the need to develop soft skills in the training of professionals in the technical assistance sector of an industrial company.

It is noticeable that in such dynamic sector, in which responses to the customers' needs cannot be delayed, professional burnout can be a serious issue. According to Ferreira and Mendes (2001) and Campos (2020), specific work environment that implicitly demand human cost, usually expressed in the form of workload, directly confront the experiences of pleasure and suffering and impact the worker's psychological well-being. For example, the technical assistance sector employees often need to deal with chaotic situations, including the lack of parts needed for a customer or service. Besides, they usually must deal with complaints both from customers and the so-called internal customers, meaning other sectors within the



company. Therefore, mastering soft skills can help avoid stress and burnout. According to Piwowar-Sulej (2021), the key employee for the company is a competent and healthy one.

Emotional intelligence is necessary to mediate conflicts and exercise leadership. It allows a broad analysis of the complete process and improves the problem-solving skills, combined with creativity and critical thinking.

The conception of this work started in 2021, when the author of the work began their internship in the technical assistance sector of a machine and spare parts manufacturing company located in Santa Catarina, Brazil.

Through this internship, there was the opportunity to implement an improvement of soft skills in the respective sector, generating a continuous improvement of the sector and an increase in the company's revenue.

METHODOLOGY

The work was initially based on a Literature Review guided by a Systematic Bibliographic Review (SBR) between the years of 2017 and 2022. Through the SBR, articles were collected in a structured manner to compose the theoretical basis and relevant data for the project. The topics within the scope of the study were discussed and categorized in sequence.

1. Systematic Bibliographic Review (SBR)

Firstly, the keywords defined, based on the question to be answered by the study: how to improve service in the technical assistance sector? Therefore, the keywords chosen for the research were: "technical assistance", "soft skill" and "work with the public".

After the keywords definition, the database ScienceDirect was chosen, due to its greater link with the topic. The research yielded a readable number of articles, which were selected through their titles and abstracts.

2. Customer Service and the Soft Skills

According to Ferreira and Mendes (2001) the work comprises people under different realities, and the context influences can be positive or negative, depending on the activity, the work quality, which directly impacts the worker's psychological well-being.

In this context, someone willing to work with the public must be socially skilled, as this characteristic will directly and significantly contribute to the improvement of the work environment and in the interpersonal relationships (CERUTTI and WAGNER, 2014; CAMPOS, 2020).



Communication is one of the most important soft skills, as it guides the ability to clearly expose the objectives and goals to be achieved by the team. It is also essential for the customers' interactions, to explain the sector's negotiations, execution schedule and delivery, as well as to intermediate negotiations and potential conflicts. Communication assertiveness is also relevant to interact with other sectors within the company. According to Pantic-Dragisic *et al.* (2020), soft skills allow one to build relationships with others on the project team and the client organization, to find out who to approach with questions, and to establish trust among team members.

Bodolica *et al.* (2021) states that the ability to deal with day-to-day pressure in today's business world is linked to an effective work.

It is important to have flexibility to perform tasks beyond what is expected and psychological/mental flexibility to help co-workers to handle stress within a dynamic environment (PIWOWAR-SULEJ, 2020).

According to Pessach *et al.* (2020), engagement and motivation of to perform one's work are employability criteria, as a motivated collaborator also encourages the performance of their colleagues, creating a pleasant corporate environment.

Empathy is another important soft skill, necessary not only to help others, but also to demonstrate compassion and understanding of one's feelings and needs (PIWOWAR-SULEJ, 2020).

To englobe all the mentioned competences, Teamwork is vital in this sector, as collaborators must understand their role and the impact of their work within the company as a role. It also helps build favorable relationships within the team and with the customers (GINTING *et al.*, 2020).

3. Application of the study in the sector

During the internship period, the author/intern implemented the most frequent soft skills to improve the services in the sector, which are listed in chronological order in the sequence.

In the first weeks of the internship (from 10/11/2021 to 11/01/2022) the authors searched in the literature to learn more about soft skills and how they are applied within the labor market.

Since a significant amount of work in this sector is done with communication via e-mail, WhatsApp and telephone calls, a training session was proposed and scheduled by the sector manager. The training was conducted by a professional who gives oratory and public speaking courses specialized in public service. The, which was entitled "Enchanted Customers",



course took place on October 21 from 7pm to 9pm remotely. Its agenda included a brief introductory explanation of the care methods.

As assertive communication was little explored by professionals in the sector, after the training, the intern started applying and encouraging the development of communication assertiveness among the entire team, especially during phone calls, as well as active listening, reading, writing and text interpretation in email exchanges.

As a third stage, the intern started two language courses in November, also as a way of encouraging their co-workers to learn a foreign language, as since the sector in they worked in inserted within Latin America (using Spanish), communicates directly with its headquarters in Europe (using Italian) and is starting to provide services in countries where the main communication language is English.

The second training session, entitled "Enchanted Customers: Part II", took place on November 18, also remotely, starting and 5:30 pm, and lasted two hours. The second part of the training included a more practical part. The trainer encouraged the participants to share their experience during the period between the training sessions, applying the concepts learned. The workers highlighted an outstanding development of the Lifelong Learning skill.

As the intern did not have much technical knowledge compared to their colleagues, they realized a point for improvement was to connect with technicians. Therefore, on December 4th, the intern attended a course on one of the machine models that works daily. On December 17, the intern attended a second course on another machine model. This allowed the intern to have a broader view of the technical aspects and their own role within the company. A more robust technical knowledge also improved creativity, problem solving and critical thinking.

Within the process, the collaborators also had to develop Leadership. Leardership is important to develop a contact network, to stablish partnership with external technicians and representatives and to assist the customers in the direct service processes. This step was carried out via email on January 10, 2022, when several articles on customer service and soft skill started to be shared among the co-workers, so that they could learn more about the topic.

Finally, since the intern was hired for the position, they have valued Ethical Perspective, keeping professionalism and social responsibility towards their company colleagues and customers, working with transparency and honesty.



RESULTS AND DISCUSSION

After the qualification provided through courses, bibliographic research on renowned websites and meetings with specialists, the soft skills started to be gradually inserted in the daily life of the sector, in which Teamwork was developed as a result of the development of empathy, assertive communication, among other soft skills.

The results found were measured against the annual billing target for services and parts imposed on the sector. Table 1 shows the percentage of the annual target, distributed monthly.

Table 1. Annual revenue target of the for parts and services.

Month	Target (%)	
(2021)	Parts	Services
Jan	7,50	8,00
Feb	8,00	8,50
Mar	8,50	8,50
Apr	8,50	8,50
May	8,50	8,50
Jun	8,50	8,50
Jul	8,50	8,00
Aug	8,50	8,50
Sep	8,50	8,50
Oct	8,50	8,50
Nov	8,50	8,00
Dec	8,00	8,00

Source: Own authorship

As shown in Table 1, the months from February to November, had the same distribution of the revenue target to be achieved regarding parts sales. For strategic reasons, the services had the same target from February to June and from August to October. In both sales lines, the initial and final month of the year had a lower percentage as a target, due to collective vacations and holiday season recess.



Table 2 shows the monthly fulfillment of the targeted revenue for parts and service, as well as the quarterly comparison to facilitate the visualization of the evolution of the sector after the application of the soft skills.

Table 2. Percentage of the revenue target accomplished monthly and quarterly for parts and services.

Accomp.	lished	Targ	get (%)	

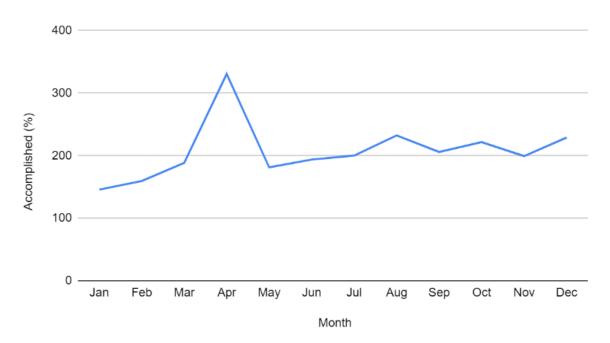
	Parts		Services	
	Monthly	Quarterly	Monthly	Quarterly
Jan	145,66		164,37	
Feb	159,36	165,38	137,08	208,87
Mar	188,45		289,49	
Apr	330,58		109,31	
May	181,33	235,21	210,71	149,48
Jun	193,73		105,83	
Jul	200,10		199,36	
Aug	232,21	212,7	260,65	313,77
Sep	205,78		300,36	
0ct	221,58		155,32	
Nov	199,27	216,34	299,23	314,74
Dec	228,91		435,33	

Source: Own authorship

For comparison purposes, graphs were used to show the evolution of the sector during the project period.

Graphic 1 shows the graph demonstrating the percentage of the parts revenue achieved in each month of 2021.





Graphic 1. Monthly revenue target accomplished for parts sales.

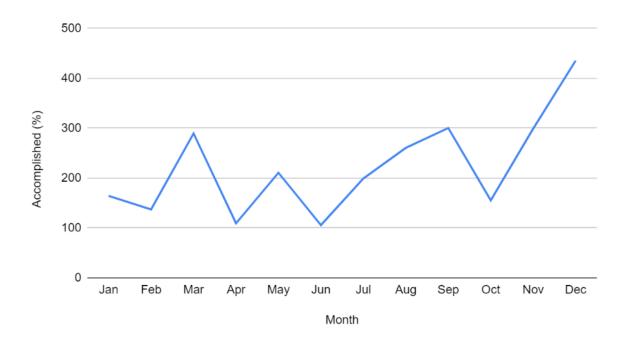
Source: Own authorship

From Graphic I, a peak in parts sales can be seen in the month of April. This was due to several factors. Firstly, as the company works with a large scope of imported parts, for a more efficient logistics planning and to reduce import costs, most of the parts are transported in consigned loads, so each part is approved but is only sent when a sufficiently large number of parts is gathered to be sent by the international supplier in a single load.

This peak in revenue is also linked to the COVID-19 pandemic. The drops in exchange rates during this period can explain why customers decided to purchase maintenance parts in advance to profit from it.

However, even with this unusual peak in the middle of the year, a growthy revenue is noticeable from the month of July onwards, suggesting that the application of soft skills that has been applied since then has been a major booster for the revenue growth. Figure 2 shows the graphic result of the evolution of monthly service revenue.





Graphic 2. Target achieved monthly of the parts sales' revenue.

Source: Own authorship

From Graphic 2, a peak in service sales is also observed, and, although lower than the parts sales one, it occurred nearly in the previous month of the peak observed in Figure 1. Therefore, one of the reasons for the large purchase of parts in the month of April, is due to the increase in demand for services in the previous month (March). In the technical assistance sector, the quotation of materials can be requested through technical opinions, which can be done either by remote support, or by technical visit.

Remote support is usually requested for electrical, electronic, or pneumatic failures, whereas technical visits are requested when there is a need to change mechanical or pneumatic parts. This often happens when the service life of the material is approaching its end, the technician informs the customer, who chooses to purchase the necessary material for preventive maintenance, avoiding equipment shutdown in the future.

Also in Graphic 2, the growing increase in service revenue from the month of June onwards can be seen more clearly. This also supports that the leverage of revenues also coincides with the development of soft skills in the sector. Graphic 3 shows the quarterly revenue target accomplished for parts sales.



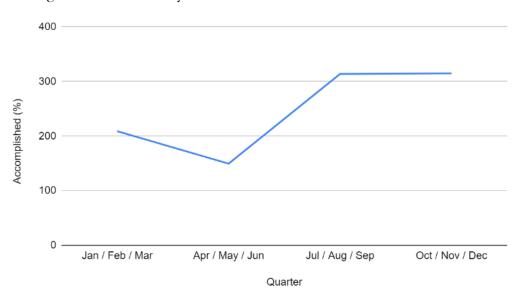
250
200
200
150
100
50
Jan / Feb / Mar Apr / May / Jun Jul / Aug / Sep Oct / Nov / Dec
Quarter

Graphic 3. Quarterly revenue target accomplished for parts sales.

Source: Own authorship

Analyzing in a quarterly basis, more summarized in 3 that there was a considerable increase in revenue from parts from the third semester onwards, which is when soft skills were implemented.

These observations are directly linked to the statement by Cerutti and Wagner (2014), that the improvement of the quality of life of the team members promotes social well-being, as it allows for professional fulfillment, which directly impacts on the increase in company productivity. In Graphic 4, the quarterly services revenue of the year is shown.



Graphic 4. Target achieved monthly of the services sales' revenue.

Source: Own authorship



In terms of services' revenue, from figure 4 its is observed that in the second quarter there was a decrease in the achievement of the target, however, it was neither negative nor below expectations. In the following quarter, there was a significant increase in the percentage of revenue, reaching 300% of the stipulated target.

This increase also occurred in the quarter in which soft skills have been introduced to the sector.

Figure 1 shows some spontaneous reports from customers during this period with free translation from Portuguese and Spanish.



Figure 1. Extracted of some positive feedbacks received by the team during the project implementation Fonte: Autores

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Table 3 brings the translation to English of the comments in Figure 1.

Table 3. Translation to English

	C
Case 1	Hello! Thank you for the contact and congratulations to all the
	maintenance team, always willing to help promptly!
Case 2	Hello! I wanted to share feedback from a client supported by you.
	He gave a ton of compliments for the support and agility to
	resolve things.
Case 3	He's my appreciation to the prompt support and dedication.
	Thanks!
Case 4	Firstly, thank you for the support. We've been getting constant
	compliments from the clients after I collect feedback for
	indicating the parts quotation to be made directly with you.
	Excellent!
Case 5	I can't believe the attention I got; everything was solved almost
	instantly.
Case 6	Hello. Thank you very much. The parts arrived very quickly.
Case 7	Thank you all that directly or indirectly contributed to the
	development of such a great relationship.
Case 8	Oh that's cool, thanks for your promptness and attention.
rae Own outhorship	

Source: Own authorship

CONCLUSION

The implementation of the soft skills in the sector was initially challenging, since most workers had been with the company for a long time and were used to a certain way of working, in addition to a low representativity of women in the team (near 20%). Some collaborators initially showed resistance for the more empathetic and assertive communicating proposed.

However, with time and the gradual implementation of these soft skills in a more natural way, without imposition or obligation, a positive outcome was observed, and interpersonal relationships improved inside and outside the corporate environment, leading to positive feedback received more frequently than in the periods prior to this. This also helps



increasing work quality in general and improving interpersonal relationships among employees.

As the intern had studied soft skills before applying the model in the sector, it was easier to get engagement at this stage of the project. Since the project implementation, the technical assistance sector has been used as an example for the other company sectors, demonstrating that soft skills have brought recognition even from the people who indirectly work with the employees involved in the project.

The benefits that this internship project brought to the author and to the company go beyond what was experienced during the execution of the project, as there are still continuous improvements being developed in the sector, due to this new vision of business and relationship. For the author, dealing directly with the public and seeing in practice, what was studied in theory, was something very gratifying. Each customer compliment encourages employees to further develop the motivation, which consequently improves teamwork.

In addition to the positive aspects brought to work environment, the company's revenue also increased, showing the great value of this project. The collaborators who participated in the case study saw that in addition to technical knowledge, it is necessary to be aware about their actions, to create a connection with the customers and show empathy towards their concerns. When customers feel valued about a company who care about their needs, are also more likely to show greater satisfaction, which drives profitability increase consequently.

BIBLIOGRAPGY

BODOLICA, Virginia; SPRAGGON, Martin; BADI, Hussam. Extracurricular activities and social entrepreneurial leadership of graduating youth in universities from the Middle East. **The International Journal of Management Education**, v. 19, n. 2, p. 100489, 2021.

CAMPOS, Débora Barni de. **Desenvolvimento de um modelo de diagnóstico de formação de competências socioemocionais para cursos de engenharia**. 2019. Tese (Doutorado em Ensino de Ciência e Tecnologia) - Universidade Tecnológica Federal do Paraná, Ponta Grossa, 2019.

CAMPOS, D. B.; RESENDE, L. M. M.; FAGUNDES, A. B. The Importance of Soft Skills for the Engineering. **Creative Education**, v. 11, p. 1504–1520, 2020.

CAMPOS, Débora Barni de et al. Soft Skills by Engineering Employers. Creative Education, v. 11, n. 10, p. 2133, 2020.

CAMPOS, Nilce Maria Rosa. O jogo virtual" soft skills & atendimento ao cliente": uma aplicação do design instrucional contextualizado na formação profissional. 2021. Tese de Doutorado.

CAMPOS, D. B.; RESENDE, L. M. M.; FAGUNDES, A. B. The perception of organizational psychologists on the importance of soft skills for Engineers. **Creative Education**, v. 13, p. 2711-2729, 2022.



CERUTTI, Priscila Sardi; WAGNER, Marcia Fortes. Habilidades sociais no atendimento ao público. **Revista de Psicologia da IMED**, v. 6, n. 1, p. 40-46, 2014.

FERREIRA, Mário César; MENDES, Ana Magnólia. "Só de pensar em vir trabalhar, já fico de mau humor": atividade de atendimento ao público e prazer-sofrimento no trabalho. **Estudos de Psicologia (Natal**), v. 6, p. 93-104, 2001.

GINTING, Henndy *et al.* The efect of outing Team Building training on soft skills among MBA students. **The International Journal of Management Education**, v. 18, n. 3, p. 100423, 2020.

KOHLBECK, E; MELO, A.; PEDROZO, G. P. S.; FAGUNDES, A. B.; PEREIRA, D.; BEUREN, F. H.; CAMPOS, D. B. Engineering skills: Systematic review in the field of professional ethics. **Creative Education**, v. 12, p. 2335–2355, 2021.

KUMAR, Ashok *et al.* Importance of Soft Skills and Its Improving Factors. **World Journal of English Language**, v. 12, n. 3, p. 220-220, 2022.

PADILHA, Felipe; GRUBER, Lauana; RIBEIRO, Yoná Pietra; CARVALHO, Jhenifer; <u>BEUREN, Fernanda Hansc</u>h; FAGUNDES, Alexandre Borges; PEREIRA, Delcio; CAMPOS, Débora Barni de. Resilience as an Important Soft Skill for Engineers? Work during the Covid-19 Pandemic. **Creative Education**, v. 12, p. 2529-2534, 2021.

PANTIC-DRAGISIC, Svjetlana; SÖDERLUND, Jonas. Swift transition and knowledge cycling: Key capabilities for successful technical and engineering consulting? **Research Policy**, v. 49, n. 1, p. 103880, 2020.

PESSACH, Dana *et al.* Employees recruitment: A prescriptive analytics approach via machine learning and mathematical programming. **Decision Support Systems**, v. 134, p. 113290, 2020.

PIWOWAR-SULEJ, Katarzyna. Human resources development as an element of sustainable HRM-with the focus on production engineers. **Journal of Cleaner Production**, v. 278, p. 124008, 2021.

URDAN, André Torres; ZUÑIGA, Melby Karina Huertas. Satisfação com assistência técnica e lealdade ao fabricante no ramo automobilístico. **Revista de Administração de Empresas**, v. 41, n. 3, p. 20-30, 2001.

