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Enchancing Online Consumer Experience Through Artificial Intelligence In CRM: The Mediating Role of Digital HR

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ABSTRACT

This study aims to analyze the impact of implementing Artificial Intelligence (AI) in managing Customer Relationship Management (CRM) on online consumer experience, with the role of digital HR as a mediator. The implementation of AI in CRM has become an increasingly popular strategy among companies to improve customer interaction, personalization, and satisfaction. However, its effectiveness depends not only on the technology used, but also on the ability of digital HR to manage and optimize it. The research method used is a quantitative approach with a survey of 200 online consumers who interact with companies that use AI-based CRM. Data were analyzed using a path analysis model to test the direct and indirect relationships between independent variables (AI implementation in CRM), mediator variables (digital HR competencies or roles), and dependent variables (online consumer experience). The results of the study show that the implementation of AI in CRM has a significant positive effect on online consumer experience. In addition, digital HR competency acts as a strong mediator, where high HR quality in managing AI technology strengthens the relationship between AI use and improved consumer experience. These findings indicate that in addition to investing in AI technology, companies need to focus on improving digital HR competency to achieve optimal results. This research provides practical implications for companies in designing more effective customer management strategies by combining AI technology and HR development. In addition, these results also provide insights for academics for further research on the role of digital HR in the era of automation and digitalization.

1. Introduction

In the increasingly developing digital era, artificial intelligence (AI) technology has become an indispensable need in various industries, including in customer relationship management (CRM). AI capabilities such as in-depth data analysis, process automation, and interaction personalization enable businesses to improve customer experience. Both companies that develop or use CRM also enjoy the technological solutions provided by AI. For example, some new features in CRM, such as chatbot services, morphing websites, programmatic advertising, and emotion, image, and facial recognition technology require a lot of data processed in real time, which is almost impossible to implement without the advancement of AI [1].

Business success depends on good customer relationship management, especially in a competitive online environment. AI helps businesses discover customer behavior patterns, predict their needs, and provide more relevant and faster services. While technology plays an important role,

the human factor—especially digital human resources—remains key in optimizing the use of AI technology. AI can evaluate users' purchasing patterns to automatically offer promotions that are more in line with their preferences. This approach can increase user engagement and the effectiveness of promotions on marketplace platforms [2]

Digital HR serves as a mediator between AI technology and consumers, ensuring that the interactions that occur remain human and in accordance with customer expectations. The goal of AI is to create a computing system that can mimic human intelligence to such an extent that AI-based devices can perform work almost without human intervention [3].

AI in CRM can improve operational efficiency and customer experience. AI enables businesses to provide more personalized experiences, answer customer questions quickly, and resolve issues more efficiently because it can analyze data in real-time. In contrast, the task of digital HR in this case is to ensure that technology is used optimally, provide necessary training, and manage the relationship between customers and AI systems in a way that creates a good relationship. AI solutions applied to CRM enable companies to become better through more efficient data assimilation and analysis and are able to anticipate, plan, and take advantage of upcoming opportunities [4].

AI in CRM can improve operational efficiency and customer experience. AI has the potential to increase efficiency, improve customer experience, and drive innovation in the e-business landscape [5].

AI enables businesses to provide more personalized experiences, answer customer questions quickly, and resolve issues more efficiently because it can analyze data in real-time. In contrast, the task of digital HR in this case is to ensure that technology is used optimally, provide necessary training, and manage the relationship between customers and AI systems in a way that creates a good relationship. Human Resources (HR) are key to facing the era of digital transformation. Industry 4.0 and society 5.0 which rely on technological developments, require Indonesia to prepare to build reliable resources [6].

According to Migdadi [7], Customer Relationship Management (CRM) is a modification and learning of consumer behavior at all times from every interaction, treatment of customers and building strength between consumers and companies. This study is expected to reveal more about how the application of AI in CRM, and the strategic role of digital HR can help create a better consumer experience in the digital era. This study will contribute to increasing customer loyalty and developing sustainable business strategies in the future.

Based on the background and phenomena that occur due to the impact of technological developments, the author is interested in conducting research entitled "The Impact of Artificial Intelligence Implementation in Customer Relationship Management (CRM) on Online Consumer Experience: The Role of Digital HR as a Mediator"

1.1 Research Problem Formulation

Based on the background above, the problem formulation in this study is:

1. Can the Implementation of Artificial Intelligence (AI) in Customer Relationship Management (CRM) have a direct impact/influence on the Online Consumer experience?
2. Can the Implementation of Artificial Intelligence (AI) in Customer Relationship Management (CRM) have a direct impact/influence on the role of Digital HR?
3. Can Online Consumer Experience have a direct impact/influence on the role of Digital HR?
4. Can the implementation of Artificial Intelligence (AI) in Customer Relationship Management (CRM) indirectly impact/influence the Online Consumer experience through the role of Digital HR?

1.2 Research purposes

Based on the problem formulation above, the objectives of this study are:

1. To determine the direct impact of the implementation of Artificial Intelligence (AI) in Customer Relationship Management (CRM) on the Online Consumer experience.

2. To determine the direct impact of the implementation of Artificial Intelligence (AI) in the management of Customer Relationship Management (CRM) on the role of Digital HR.
3. To determine the direct influence of the role of Digital HR on online consumer experience.
4. To determine the indirect influence of the implementation of Artificial Intelligence (AI) in the management of Customer Relationship Management (CRM) on the Online Consumer experience through the role of Digital HR.

1.3 Literature Review

1) Implementation of Artificial Intelligence (AI)

a) Definition of Artificial Intelligence (AI)

According to González [8] Artificial Intelligence comes from English "Artificial Intelligence" or abbreviated as AI, namely Intelligence is an adjective meaning intelligent, while Artificial means artificial. The artificial intelligence referred to here refers to machines that are able to think, weigh the actions to be taken, and are able to make decisions like those done by humans.

Artificial intelligence (AI) according to John McCarthy is a science and technique in creating intelligent machines, especially in creating intelligent computer programs or applications. AI is a step to create computers, robots, or applications or programs that work intelligently, like humans [9].

Meanwhile, Artificial Intelligence is a branch of science related to the use of machines to solve complex problems in a more humane way [10].

b) The Purpose of Creating AI

The purpose of creating AI itself is to:

1) Creating an expert system, namely a system that can perform intelligent behavior, learn, demonstrate, explain, and advise users.
2) To implement human intelligence into machines, creating a system that can understand, think, learn, and behave like humans.

Things that contribute to AI itself include Computer Science, Biology, Psychology, Language, Mathematics, and Engineering. One of the big steps in creating a computer related to artificial intelligence is, thinking logically, learning, and solving problems.

2) Customer Relationship Management (CRM)

a) Definition of Customer Relationship Management (CRM)

According to Cricelli [11] CRM is a way of computerizing business, others say CRM is a series of techniques and tools for handling consumers.

Customer Relationship Management (CRM) is a different concept according to the views of various parties, for some people CRM is consumer relationship management but others argue that not all consumers want a relationship with suppliers, removing the word relationship to consumer management aka Customer Management. There are also parties who prefer the term Relationship Management [12].

Meanwhile, Customer Relationship Management is a strategy to identify, attract, and retain the most valuable consumers for the company [13]. CRM concentrates on what consumers value, not on what the company wants to sell.

b) How CRM Works

According to Guerola [14], CRM or customer or consumer relationship management, has the following working method:

1) Creating a continuous communication loop between brands and consumers. This action can be done by telephone, face to face, correspondence, internet or a combination of these methods.
2) Knowing the consumer. Using newly discovered communication channels to learn about consumers not just by name and address but who they are, who is in their family, what they do, what their ambitions are, what they like and dislike. Companies can ask consumers directly.

3) Using existing consumer data. Companies need to look at the information that they should already have about consumers, including information about how often they buy from the company, how much money they spend on products, and when they last bought.
4) Ask consumers what they want from the company. What they would buy if only the company provided it, What they like about the company's Brand and What they don't like about the Brand.
5) Developing untapped potential. What brands do they buy that are competitors, why don't they buy everything they need from the company if the company offers it, and what needs to be done to convince consumers to buy more.
6) Creating knowledge. By combining all existing data to create the most effective database in the organization as a whole.
7) Reusing existing knowledge from time to time.

c) Indicators of the Role of AI in CRM

According to Chatterjee [9], indicators of AI implementation in CRM can be seen from several aspects, namely:

1) Personalize Interactions. AI enables companies to provide more personalized experiences to customers by analyzing their behavioral data and preferences. This can increase customer satisfaction and loyalty.
2) Customer Data Analysis. The use of AI to analyze big data related to customer behavior and transactions. This helps companies understand patterns and trends that can impact marketing and sales strategies.
3) Customer Service Automation. Implementation of chatbots and other automated systems to provide fast and efficient customer service. This not only increases efficiency but also reduces customer waiting time.
4) Sales Forecast. AI can help in predicting future sales potential and customer needs, enabling companies to take proactive steps in marketing strategies.
5) Sentiment Analysis. The use of AI to analyze customer sentiment through social media and product reviews, provides insight into how products and services are received by the market.

3) Online Consumer Experience

a) Definition of Online Customer Experience

According to Meyer & Schwager [15], customer experience is the internal and subjective response of customers as a result of direct or indirect interactions with the company.

According to Kuuru [16] customer experience is defined as coming from a set of interactions between customers and products, companies or parts of organizations that cause reactions. Personal experiences have different customer involvements (whether rationally, emotionally, sensory, physically and spiritually).

Meanwhile, customer experience is a cognitive recognition and perception that can increase the value of products and services [17]. Customer experience is the result of consumer interaction with the company physically and emotionally.

Meanwhile, according to Petit [18], Online Experience is "the totality of interactions experienced by consumers during the process of purchasing and using products or services through digital channels."

So online consumer experience often refers to how consumers interact with brands through digital platforms.

b) Online Experience Indicators

According to Nanda [19], the key to expressing online consumer experience is:

1) Multi-Touch Interaction. Consumer experience involves multiple touchpoints, from browsing to purchasing and after-sales service.

2) Emotions and Perception. This experience is influenced by consumers' emotions and perceptions of the brand, which can be shaped by factors such as site design, speed, and customer service.

3) Satisfaction and Loyalty. Positive experiences can increase customer satisfaction and brand loyalty, while negative experiences can cause customers to switch to competitors.

4) The Role of Digital HR

a) Definition of Digital HR

According to Zhang [20], digital HR is human resources who have the ability to adapt to digital technology, and are able to utilize this technology to increase productivity and innovation in the workplace. Mazurchenko [21] stated that digital HR is a workforce that is skilled in using digital tools and technology, and is able to manage and analyze data for better decision making.

Meanwhile, Manuti [22] defines digital HR as individuals who not only master technology, but also have the social and emotional skills needed to work in an increasingly connected and collaborative environment.

According to Bannikov [23], he emphasized that digital HR must be able to carry out digital transformation in the organization, which includes the implementation of new technologies and the development of digital skills among employees.

b) Benefits of Digital HR

According to Zhang [20] the benefits of digital HR are as follows:

1) High Adaptability. Digital HR tends to be more flexible and able to adapt quickly to technological changes and industry trends.
2) Data Processing Ability. They are able to leverage data effectively to make more accurate and informed data-driven decisions.
3) Creativity and Innovation. Digital HR is often more creative in finding new solutions and innovations, especially with the help of technology.
4) Operational Efficiency. Digital technology enables HR to work faster and more efficiently, reducing operational costs and increasing productivity.
5) Global Collaboration. Digital HR can easily work across geographical and time boundaries, enabling broader collaboration.

c) Digital HR Capability Indicators

According to Zhang [20], the indicators of digital HR are as follows:

1) Ability to Adapt to Technology
   Digital HR must be able to adapt to new technologies quickly, understand how they work, and use them to improve work efficiency.
2) Expertise in Data and Analytics
   One of the main characteristics of digital HR is its ability to process, analyze, and make decisions based on relevant and real-time data.
3) Innovative and Creative Thinking
   Digital HR is expected to have the ability to think creatively, seek new solutions, and innovate that is relevant to current digital challenges.
4) Digital Collaboration Skills
   The ability to work collaboratively using digital tools and platforms is one of the key indicators of digital HR. This includes the ability to communicate and coordinate across teams, locations, and time.
5) Agile and Responsive
   Digital HR must have an agile mindset, where they are ready to continue learning, changing strategies, and adapting quickly to market dynamics and technological developments.
6) Understanding Digital Transformation:
   Digital HR must have a deep awareness of the importance of digital transformation in business and understand how technology can be integrated into every aspect of work and business processes

2. Methods

2.1 Research methods

This study uses a quantitative approach. This study was conducted to analyze the Impact of Artificial Intelligence Implementation in Customer Relationship Management (CRM) Management on Online Consumer Experience, as well as the role of Digital HR as a Mediator.

The method of data collection in this study uses a survey research method, the data analysis technique in this study uses regression analysis with statistical analysis with Path Analysis using the Smart PLS (Partial Least Square) 3.0 program. The population and sample in this study are Online Consumers who interact with AI-based CRM companies. The technique used in this study is Simple Random Sampling.

2.2 Population and Sample

The population in this study is Online Consumers who interact with AI-based CRM companies. A sample is a part of the population taken through certain methods that have characteristics that are considered to be able to represent the population [24]. The sample in this study was 200 Online Consumers who interacted with AI-based CRM companies.

2.3 Data source

The types and sources of data used in this study are Primary data. Primary data is research data obtained from direct research results in the field, such as respondents' answers describing the Influence of Artificial Intelligence Implementation in Customer Relationship Management (CRM) Management on Online Consumer Experience, as well as the role of Digital HR as a Mediator. For this purpose, researchers use questionnaires.

2.4 Data collection technique

The data collection method used in this study is a questionnaire, namely a data collection method by distributing questionnaires (question lists) aimed at respondents.

2.5 Data Analysis Techniques

The data analysis technique of this research uses PLS software version 3.0 (Partial Least Square) which is a variant-based structural equation analysis (Structural Equation Model) that can simultaneously test measurement models and test structural models. From the research results collected, the following analysis methods can be used:

1) Measurement Model (Outer Model)

Measurement model (outer model) is conducted to test the validity and reliability of the research instrument. The validity test in this study uses convergent validity and discriminant validity. Convergent validity is seen from the measurement model with indicator reflection which is assessed based on the correlation of the model between component score/item score and construct score calculated by PLS. If the correlation is more than 0.70 with the construct to be measured, then the individual reflection measure is said to be high. For early stage research, measurement with an outer loading value of 0.5-0.6 has been considered sufficient.

Ghozali (2015:114) explains that in assessing discriminant validity using other methods, the values are compared.square root of average variance extracted(AVE) The recommended value is that the AVE value must be greater than 0.5. The AVE formula according to Ghozali (2015:115) is:

$$\mathbf{AVE = \lambda i2\ \lambda i2 + ivar\ (\varepsilon i)}$$

Mark composite reliability The recommended value should be above 0.6.

2) Structural Model (Inner Model)

The structural model is used to predict the causal relationship between latent variables. The structural model is evaluated by looking at the percentage of variance explained by the R2 value for the dependent variable using the Stone-Geisser Q-Square Test measure [25]. The equation model is:

$$\mathbf{N = \square O + \square \square + \square \square + \square}$$

Where□describes the vector of endogenous (dependent) latent variables, is a vector of residual variables. Each dependent latent variable of the latent variable can be specified as follows:

$$\mathbf{pc = \square i \square ji \square i + \square i \square jb \square b + \square j}$$

Where□ji and□jb is the path coefficient connecting the endogenous predictor and the exogenous latent variable.□And□along the index range i and b, and□is the inner residual variable. If the results produce an R2 value greater than 0.2, it can be interpreted that the latent predictor has a large influence on the structural level. The following is a picture of the research structural model:

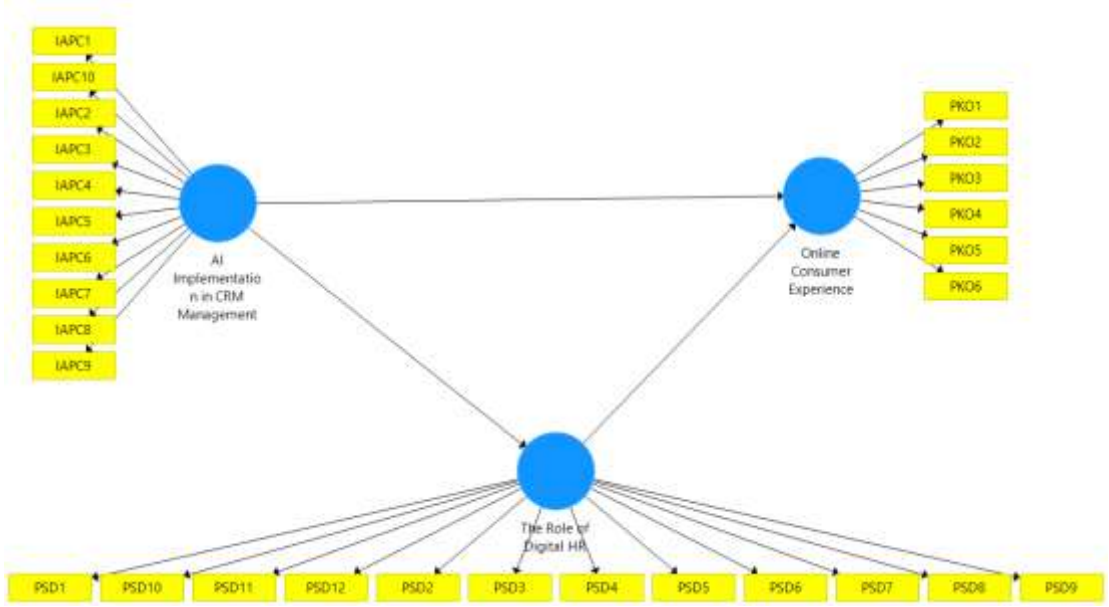

Fig. 1. Research Model

3) Hypothesis Testing

Hypothesis testing (β, γ, and λ) was conducted using the bootstrap resampling method developed by Geisser & Stone. The measure of the significance of hypothesis support can be used by comparing the t table and t statistic values through the following decision-making criteria [26]:

1) If t statistic > t table and p values < sig 0.05 means Ha is accepted, Ho is rejected.
2) If t statistic ≤ t table and p values ≥ sig 0.05 means Ha is rejected, Ho is accepted.

3. Result And Discussion

3.1. Outer Model Analysis

Measurement model testing (outer model) is used to determine the specifications of the relationship between latent variables and their manifest variables. This testing includes convergent validity, discriminant validity and reliability.

Convergent Validity

A correlation can be said to meet convergent validity if it has a loading value of > 0.7. The output shows that the loading factor provides a value above the recommended value of 0.7. However, in the scale development stage of research, a loading of 0.60 is still acceptable. So that the indicators used in this study have met convergent validity (Convergen Validity). The structural model in this study is shown in the following figure:

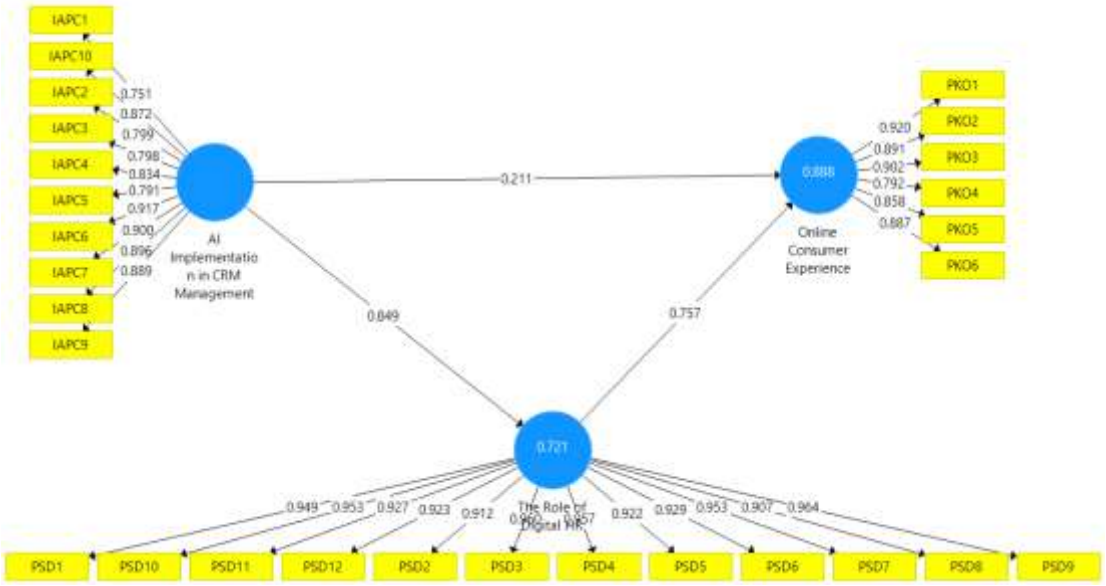

Fig. 2. Outer Model, Algorithm Testing

Table 1. Outer Loading

	AI Implementation in CRM Management_	Online Consumer Experience_	The Role of Digital HR_
IAPC1	0.751		
IAPC2	0.799		
IAPC3	0.798		
IAPC4	0.834		
IAPC5	0.791		
IAPC6	0.917		
IAPC7	0.900		
IAPC8	0.896		
IAPC9	0.889		
IAPC10	0.872		
PKO1		0.920	
PKO2		0.891	
PKO3		0.902	
PKO4		0.792	
PKO5		0.858	
PKO6		0.887	
PSD1			0.949
PSD10			0.953
PSD11			0.927
PSD12			0.923
PSD2			0.912
PSD3			0.960
PSD4			0.957
PSD5			0.922
PSD6			0.929
PSD7			0.953
PSD8			0.907
PSD9			0.964

[a.] Source: Smart PLS Program Output. 3.0, 2024

[b.]

Based on the data in table 1, the value can be seenouter loadingthe lowest in the outer model test results of this study is 0.751 which is in the IAPC1 indicator. Referring to the previously determined outer loading limit of 0.7. then the results indicate that the model is stated to meet the assumption of convergent validity because the lowest outer loading value obtained is 0.751 > 0.7.

3.2. Construct Validity and Reliability

Table 2. Construct Validity and Reliability

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
AI Implementation in CRM Management_	0.957	0.971	0.962	0.716
Online Consumer Experience_	0.939	0.943	0.952	0.767
The Role of Digital HR_	0.988	0.988	0.989	0.880

[c.] Source: Smart PLS Program Output. 3.0, 2024

The data in Table 2 above shows that the lowest AVE value of the 3 variables is 0.716 which is owned by the AI implementation variable in CRM Application. This result shows that the three research variables have met the assumption of discriminant validity because the lowest AVE value obtained is more than 0.5. Meanwhile, the results of the cronbach alpha and composite reliability show that the lowest values are 0.939 and 0.952 owned by the online consumer experience variable. Thus, these results have also proven that all variables meet the assumption of reliability construct because the lowest cronbach alpha and composite reliability values are > 0.7.

3.3. Inner Model Testing

After conducting the outer model test, it is necessary to carry out an evaluation on the final structural equation model (*inner model*). The inner model test of this research was conducted by looking at the path coefficient and R square values as follows:

Table 3. R Square

	R Square	**R Square Adjusted**
Online Consumer Experience_	0.888	0.887
The Role of Digital HR_	0.721	0.719

[d.] Source: Output of Smart PLS Program. 3.0, data processed by the author 2024

Based on table 3. above, it shows that the value*R Square*for the variable for the online consumer experience variable is 0.888, the acquisition explains that the percentage of the online consumer experience is 88.8%. This means that the AI implementation variable in CRM Application influences the online consumer experience by 88.8% and the remaining 11.2% is influenced by other variables, while the R Square value for the Digital HR role variable is 0.721, the acquisition explains that the percentage of the role of Digital HR is 72.1%. This means that the online consumer experience variable influences the role of Digital HR by 72.1% and the remaining 27.9% is influenced by other variables.

Table 4. Inner Model test results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
AI Implementation in CRM Management_ -> Online Consumer Experience_	0.211	0.203	0.068	3,118	0.002
AI Implementation in CRM Management_ -> The Role of Digital HR_	0.849	0.849	0.030	27,994	0,000
The Role of Digital HR_ -> Online Consumer Experience_	0.757	0.764	0.057	13,321	0,000

[e.] Source: Output of Smart PLS Program. 3.0, data processed by the author 2024

Based on table 4 above, the results of the evaluation of the structural equation model of the relationship between variables are partially explained by the values*path coefficient*can be described as follows:

1) *Path coefficient*, Hypothesis 1, namely the variable of AI implementation in CRM application on online consumer experience is obtained at 0.211. This value shows that there is an influence of 21.1% (0.211 x 100%). This result also means that with the implementation of AI in CRM application, the online consumer experience will increase.

2) The path coefficient value in hypothesis 2, the implementation of AI in the application of CRM to the role of Digital HR is obtained at 0.849. This value shows that the implementation of AI in the application of CRM has an influence of 84.9% (0.849 x 100%) on the role of Digital HR. This result also means that the higher the implementation of AI in the application of CRM, the higher the role of Digital HR.

3) The path coefficient value in hypothesis 3, namely the role of Digital HR on online consumer experience, is 0.757. This value shows that the role of Digital HR has an influence of 7.57% (0.757 x 100%) on online consumer experience. This result also means that the better the role of Digital HR, the better the online work experience.

3.4. Hypothesis Testing

This study has 4 hypotheses as the research questions that have been formulated and need to be tested for their truth. Hypothesis testing in this study uses the t-test, namely by comparing the t-statistic value obtained from the bootstrapping test with the critical limit of the t-table value of 1.971 at a significance level of 5% (0.05). The results of the hypothesis test of this study are presented as follows:

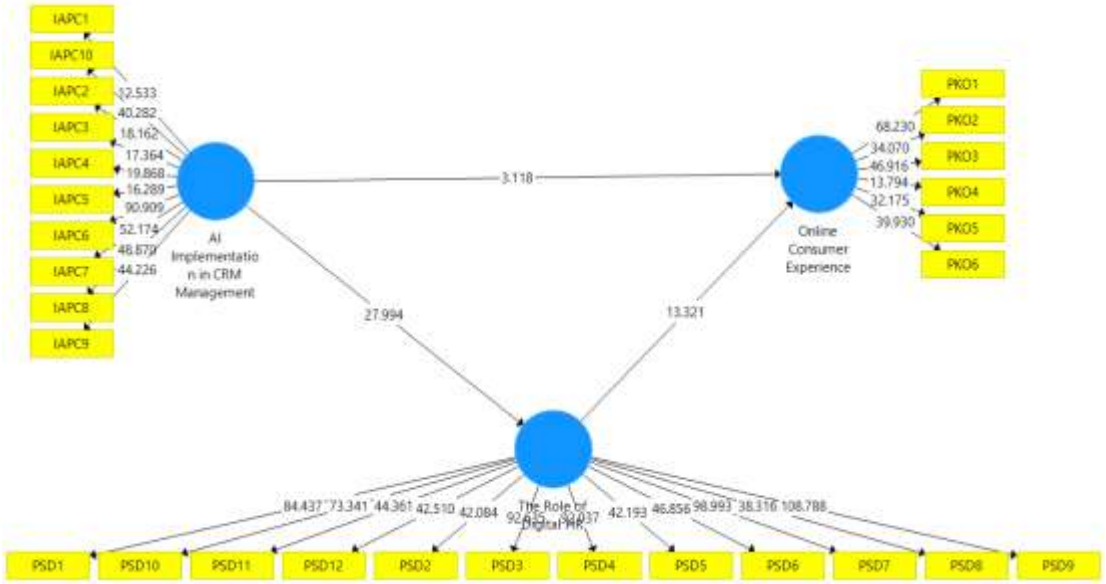

Fig. 3. Inner Model, Bootstrapping Testing

[f.] Source: Data processed by the author, 2024.

3.5. Direct Test Results

Table 5. Results of Direct Influence Test

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Information
AI Implementation in CRM Management_ -> Online Consumer Experience_	0.211	0.203	0.068	3,118	0.002	Accepted
AI Implementation in CRM Management_ -> The Role of Digital HR_	0.849	0.849	0.030	27,994	0,000	Accepted
The Role of Digital HR_ -> Online Consumer Experience_	0.757	0.764	0.057	13,321	0,000	Accepted

[g.] Source: Output of Smart PLS Program. 3.0, data processed by the author 2024

Based on the PLS output (bootstrapping test) presented in Table 5, it can be explained that:

1) Hypothesis 1: From the original sample value of 0.211, the t-statistic value of 3.118 and the P-value of 0.002 were obtained. These results prove that the application of AI in CRM has a

direct effect on online consumer experience with a relationship value of 21.1% (0.211 x 100%). The t-statistic value of 3.118> t table 1.971 and the P-value of 0.002 <0.05 prove that hypothesis 1 in this study is accepted.

2) Hypothesis 2: From the original sample value of 0.849, the t statistic value of 27.994> 1.971 and the P-value of 0.000 were obtained. These results prove that the implementation of AI in CRM has a direct positive and significant effect on the role of Digital HR with a relationship value of 84.9% (0.849 x 100%). The t statistic value of 27.994> t table 1.971 and the P-value of 0.000 <0.05 prove that hypothesis 2 in this study is accepted.

3) Hypothesis 3: From the original sample value of 0.757, the t statistic value of 13.321> 1.971 and the P-value of 0.000 were obtained. These results prove that the role of Digital HR directly has a significant effect on online consumer experience with a relationship value of 75.7% (0.757 x 100%). The t statistic value of 13.321> t table 1.971 and the P-value of 0.000 <0.05 prove that hypothesis 3 in this study is accepted.

3.6. Indirect Test Results (Mediation)

Table 6. Results of Indirect Effect Test (Mediation)

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Information
AI Implementation in CRM Management_ -> The Role of Digital HR_ -> Online Consumer Experience_	0.643	0.650	0.064	9,988	0,000	Accepted

[h.] Source: Output of Smart PLS Program. 3.0, data processed by the author 2024

Based on the PLS output (bootstrapping test) in the mediation test presented in Table 6, it can be explained that:

Hypothesis 4: From the original sample value of 0.643, the t-statistic value of 9.988 and the P-value of 0.000 were obtained. These results prove that the implementation of AI in CRM has an indirect effect on the online consumer experience through the role of Digital HR, with a relationship value of 64.3% (0.643 x 100%). The t-statistic value of 9.988> t table 1.971 and the P-value of 0.000 <0.05 prove that hypothesis 4 in this study is accepted.

4. Conclusions

Based on the results of the research that has been conducted and the data analysis as explained in the previous chapter, the following conclusions can be drawn:

1) The implementation of AI in CRM directly has a significant impact on the online consumer experience,

2) The implementation of AI in CRM has a direct positive and significant impact on the role of Digital HR.

3) The role of Digital HR directly has a significant impact on the online consumer experience.

4) The implementation of AI in CRM directly and indirectly has a positive and significant effect on the online consumer experience through the role of Digital HR. Or the role of Digital HR is able to mediate the implementation of AI on the online consumer experience.

Based on the conclusions outlined above, the researcher makes the following suggestions:

1. In order for the implementation of Artificial Intelligence (AI) in Customer Relationship Management (CRM) to improve the online consumer experience, it is hoped that companies can provide:
   a. machine learning algorithms to analyze customer data and provide relevant product recommendations.
   b. implementing AI-based chatbots to provide real-time customer support, answer frequently asked questions, and handle complaints.

c. using AI technology to analyze customer reviews and feedback, thereby identifying problems and areas for improvement.
d. using AI algorithms to segment customers based on behavior, preferences, and demographics, enabling a more focused marketing approach.
e. using predictive analytics to identify customers at risk of leaving the service, so that preventive action can be taken.
f. integrate multiple communication channels (email, social media, live chat) to get a comprehensive view of customer interactions.
g. provide training to teams on the use of AI tools in CRM to improve their customer service capabilities.
h. ensure all AI implementations comply with data protection regulations to maintain customer trust.

2. To enhance the role of HR in implementing AI in CRM, it is expected that companies can train employees in the use and integration of AI technology. With proper training, employees can understand how to utilize AI tools to analyze customer data, improve interactions, and provide more personalized services, thereby creating a better online experience for customers.

References

[1] A. Pearson, "Personalisation the artificial intelligence way," *J. Digit. \& Soc. Media Mark.*, vol. 7, no. 3, pp. 245–269, 2019.
[2] M. H. Setiawan, R. Komarudin, and D. N. Kholifah, "Pengaruh Kepercayaan, Tampilan Dan Promosi Terhadap Keputusan Pemilihan Aplikasi Marketplace," *J. Infortech*, vol. 4, no. 2, pp. 139–147, 2022.
[3] T. Talaviya, D. Shah, N. Patel, H. Yagnik, and M. Shah, "Implementation of artificial intelligence in agriculture for optimisation of irrigation and application of pesticides and herbicides," *Artif. Intell. Agric.*, vol. 4, pp. 58–73, 2020.
[4] M. Shofiudin, T. M. P. Wiryawanto, Z. Hawani, and F. M. Amin, "TREN IMPLEMENTASI CUSTOMER RELATIONSHIP MANAGEMENT BERBASIS ARTIFICIAL INTELLIGENCE," *JSiI (Jurnal Sist. Informasi)*, vol. 11, no. 1, pp. 27–32, 2024.
[5] M. J. Castillo and H. Taherdoost, "The impact of AI technologies on e-business," *Encyclopedia*, vol. 3, no. 1, pp. 107–121, 2023.
[6] J. Julhadi and R. Mahyudin, "Human Resource Management in Islamic Educational Institutions to Improve Competitiveness in Society 5.0 Era," *Int. J. Sustain. Dev. Plan.*, vol. 18, no. 2, pp. 611–619, 2023.
[7] M. M. Migdadi, "Knowledge management, customer relationship management and innovation capabilities," *J. Bus. \& Ind. Mark.*, vol. 36, no. 1, pp. 111–124, 2021.
[8] C. González Garc\'\ia, E. R. Núñez Valdéz, V. Garc\'\ia D\'\iaz, B. C. Pelayo Garc\'\ia-Bustelo, J. M. Cueva Lovelle, and others, "A review of artificial intelligence in the internet of things," *Int. J. Interact. Multimed. Artif. Intell. 5*, 2019.
[9] S. Chatterjee, R. Chaudhuri, and D. Vrontis, "AI and digitalization in relationship management: Impact of adopting AI-embedded CRM system," *J. Bus. Res.*, vol. 150, pp. 437–450, 2022.
[10] B. Shneiderman, "Human-centered artificial intelligence: Reliable, safe \& trustworthy," *Int. J. Human--Computer Interact.*, vol. 36, no. 6, pp. 495–504, 2020.
[11] L. Cricelli, F. M. Famulari, M. Greco, and M. Grimaldi, "Searching for the one: Customer relationship management software selection," *J. Multi-Criteria Decis. Anal.*, vol. 27, no. 3–4, pp. 173–188, 2020.
[12] B. Libai *et al.*, "Brave new world? On AI and the management of customer relationships," *J. Interact. Mark.*, vol. 51, no. 1, pp. 44–56, 2020.
[13] L. P. L. Cavaliere *et al.*, "The Impact of customer relationship management on customer satisfaction and retention: The mediation of service quality," *Turkish J. Physiother. Rehabil.*, vol. 32, no. 3, pp. 22107–22121, 2021.
[14] V. Guerola-Navarro, H. Gil-Gomez, R. Oltra-Badenes, and J. Sendra-Garc\'\ia, "Customer

relationship management and its impact on innovation: A literature review," *J. Bus. Res.*, vol. 129, pp. 83–87, 2021.

[15] C. Meyer, A. Schwager, and others, "Understanding customer experience," *Harv. Bus. Rev.*, vol. 85, no. 2, p. 116, 2007.

[16] T.-K. Kuuru and E. Närvänen, "Embodied interaction in customer experience: a phenomenological study of group fitness," *J. Mark. Manag.*, vol. 35, no. 13–14, pp. 1241–1266, 2019.

[17] M. Zhao and X. Wang, "Perception value of product-service systems: Neural effects of service experience and customer knowledge," *J. Retail. Consum. Serv.*, vol. 62, p. 102617, 2021.

[18] O. Petit, C. Velasco, and C. Spence, "Digital sensory marketing: Integrating new technologies into multisensory online experience," *J. Interact. Mark.*, vol. 45, no. 1, pp. 42–61, 2019.

[19] A. Nanda, A. Thayib, R. Wijayanti, and others, "Customer Equity as Mediator of Customer Experience and Loyalty Relationship.," *Qual. to Success*, vol. 22, no. 185, 2021.

[20] J. Zhang and Z. Chen, "Exploring human resource management digital transformation in the digital age," *J. Knowl. Econ.*, vol. 15, no. 1, pp. 1482–1498, 2024.

[21] A. Mazurchenko, K. Marš\'\iková, and others, "Digitally-powered human resource management: Skills and roles in the digital era," *Acta Inform. Pragensia*, vol. 8, no. 2, pp. 72–87, 2019.

[22] A. Manuti, P. D. De Palma, and others, "Digital HR," *London Palgrave Macmillan, doi*, vol. 10, pp. 973–978, 2018.

[23] S. A. Bannikov and K. T. Abzeldinova, "Digital transformation of HR management system," in *International Scientific and Practical Conference "Russia 2020-a new reality: economy and society" (ISPCR 2020)*, 2021, pp. 54–58.

[24] M. R. Pugu, S. Riyanto, and R. N. Haryadi, *Metodologi Penelitian; Konsep, Strategi, dan Aplikasi*. PT. Sonpedia Publishing Indonesia, 2024.

[25] S. Devyani and L. Meria, "How job insecurity affects organizational commitments through job satisfaction," *APTISI Trans. Manag.*, vol. 7, no. 3, pp. 231–242, 2023.

[26] A. Ishizaka and S. Siraj, "Are multi-criteria decision-making tools useful? An experimental comparative study of three methods," *Eur. J. Oper. Res.*, vol. 264, no. 2, pp. 462–471, 2018.