REDEFINING CRM FOR THE DIGITAL AGE: THE ROLE OF CUSTOMER DATA PROTECTION FROM AN ISLAMIC PERSPECTIVE

Reni Furwanti[1]*
Casmini[2]
Muhammad Ghafur Wibowo[3]
[1,2,3]Universitas Islam Negeri Sunan Kalijaga Yogyakarta
[1]Corresponding Email: renifurwanti96@gmail.com

ABSTRACT - This study refines Customer Relationship Management (CRM) as a strategic approach for the digital era. It proposes Customer Data Protection (CDP) as a crucial new dimension for a more holistic CRM framework. This revised framework addresses inconsistencies in past CRM definitions, which have contributed to implementation failures across industries. The urgency for this refinement is further emphasized by Indonesia's weak data security landscape. Employing a quantitative survey methodology, the study gathers data from 412 respondents selected through purposive sampling. Confirmatory Factor Analysis (CFA) is then utilized to analyze each CRM dimension within the collected data. The empirical findings establish five significant dimensions of CRM, forming a strategic framework referred to as the "5C CRM." This framework encompasses processes for cultivating positive stakeholder relationships, preserving company value, and ultimately enhancing customer satisfaction. From an Islamic perspective, data protection aligns with the Maqāṣid Sharia principle of hifdz al-nafs (protecting life). By securing customer data, companies safeguard customers from potential dangers associated with cybercrime and unauthorized access. This aligns with the Quranic verse An-Nur:27, which emphasizes seeking permission before entry. This verse signifies the company's responsibility to secure and protect customer data from unauthorized access. Ultimately, businesses that actively safeguard personal information are more likely to cultivate customer satisfaction and loyalty. The findings suggest that prioritizing data security not only aligns with Islamic principles but also fosters stronger customer relationships.
Keywords: Customer Relationship Management, Strategic, Digitalization Industry, Maqashid Shariah

***ABSTRAK - Redefinisi CRM untuk Era Digital: Peran Perlindungan Data Konsumen dalam Perspektif Islam.** Penelitian ini meredefinisi konsep Customer Relationship Management (CRM) sebagai pendekatan strategis untuk era digital dengan mengusulkan dimensi baru, yaitu Perlindungan Data Konsumen (Customer Data Protection - CDP), untuk menciptakan kerangka kerja CRM yang lebih komprehensif. Penyempurnaan ini bertujuan untuk mengatasi persoalan inkonsistensi definisi CRM yang berakibat pada kurang efektifnya implementasi di berbagai sektor. Urgensi penyempurnaan ini disebabkan oleh kondisi keamanan data di Indonesia yang masih lemah sehingga sering terjadi kebocoran. Penelitian ini menggunakan metode kuantitatif dengan mengumpulkan data melalui survei kuesioner dari 412 responden yang dipilih secara purposif. Confirmatory Factor Analysis (CFA) digunakan untuk menganalisis dimensi-dimensi CRM dari data yang terkumpul. Hasil kajian menetapkan lima dimensi kunci CRM yang membentuk kerangka strategis yang disebut "5C CRM". Kerangka ini mencakup proses yang dilakukan perusahaan untuk membina hubungan positif dengan pemangku kepentingan internal dan eksternal, menjaga nilai perusahaan, dan meningkatkan kepuasan pelanggan. Dari perspektif Islam, perlindungan data konsumen sejalan dengan prinsip Maqashid Syariah, khususnya aspek hifdz al-nafs (melindungi kehidupan). Dengan pengamanan data konsumen, perusahaan akan melindungi pelanggan dari bahaya kejahatan dunia maya dan akses yang tidak sah. Hal ini sesuai dengan ayat Al-Qur'an An-Nur:27 yang menekankan pentingnya meminta izin sebelum memasuki suatu tempat, yang menandakan tanggung jawab perusahaan untuk mengamankan dan melindungi data konsumen dari akses tidak sah. Pada akhirnya, perusahaan yang secara aktif melindungi informasi pribadi cenderung meningkatkan kepuasan dan loyalitas pelanggan. Temuan penelitian menunjukkan bahwa prioritas terhadap keamanan data tidak hanya sejalan dengan prinsip Islam tetapi juga memperkuat hubungan dengan pelanggan.*
Kata Kunci: Customer Relationship Management, Strategi, Digitalisasi Industri, Maqashid Syariah.

INTRODUCTION

Studies by Nielsen, reported in Top Business (2019), reveal a concerning trend of low brand loyalty among Indonesian consumers. This is evidenced by the high proportion (37%) who do not consistently favor specific brands during shopping experiences. Notably, product quality remains the primary driver of purchasing decisions (45%), followed by factors such as ease of use (41%), price (38%), and reviews (33%). This low brand loyalty intensifies competition across market segments in Indonesia, necessitating effective strategies to cultivate and strengthen customer loyalty (Makudza, 2021). This situation highlights the need for companies to move beyond traditional marketing communication approaches, which often lack innovation and struggle to foster lasting customer satisfaction (Eltahir et al., 2021). Building strong relationships with consumers is crucial, as positive customer experiences directly impact brand loyalty (Gopalsamy & Gokulapadmanaban, 2021), a valuable intangible asset for companies navigating the global market (Femina & Sudheep, 2015; S. H. Hassan et al., 2019).

Customer Relationship Management (CRM) is a strategic concept aimed at strengthening company-customer relationships (Elkhansa & Hamid, 2020; Jain et al., 2022). It aims to foster emotional connections with stakeholders (Elkhansa & Hamid, 2020; Jain et al., 2022) and has four dimensions: Complaint Resolution, Customer Orientation, Customer Empowerment, and Customer Knowledge. However, its definition has recently narrowed, often seen only as a tech tool for communication (Frow & Payne, 2009), leading to ambiguous definitions and implementation failures (Dehghanpouri et al., 2020; Eltahir et al., 2021; Noviana, 2021).

Furthermore, CRM automates business processes across customer touchpoints, facilitating engagement and interdepartmental communication (Peelen & Beltman, n.d.). It's crucial in the digital age, enabling effective customer interaction. However, digitalization challenges, such as personal data privacy misuse, are prevalent in emerging markets like Indonesia. These issues lead to sensitive data exploitation and potential data breaches (Nurhaliza, 2021). Novi Kurnia, National Coordinator of the Digital Literacy Activist Network, highlights Indonesia's weak data protection, leading to cybercrimes and online fraud (Kementerian Komunikasi dan Informasi RI, 2021).

Previous research highlights the importance of customer data protection due to instances of data leaks leading to fraud. Kurnianingrum (2020) emphasizes the importance of robust data protection due to instances of data leaks leading to fraud. Data privacy is key to trust and positive company-customer relations (Hia et al., 2022). Companies must prioritize data protection to avoid legal, financial, and reputational risks (Kumar & Reinartz, 2018). Non-compliance with privacy laws can lead to hefty fines (T. Tony Ke & K. Sudhir, 2020). Ruivo et al. (2015) argue that data protection is crucial for a company's reputation and future customer communication. This research introduces Customer Data Protection (CDP) as a new CRM dimension, aligning with Indonesian laws No. 11/2008 and and the Minister of Communication and Information Regulation No. 20/2016 on customer protection in Information and Electronic Transactions.

Incorporating CDP into CRM creates a comprehensive framework, addressing past limitations that overly focused on technology for customer engagement, while neglecting people and processes. This integration mitigates digital vulnerabilities, as CRM systems, which monitor customer interactions and behavior, are susceptible to cyberattacks and privacy breaches (Abidin et al., 2019). Data security best practices in CRM, like data encryption, can safeguard sensitive customer information (Aaron R. Brough & Kelly D. Martin, 2020), and robust authentication methods add security layers, verifying user identities (Martin et al., 2017). Protecting customer data aligns with *maqāṣid sharia*, particularly *hifdz al-nafs* (protecting life), shielding customers from cybercrime harm. This principle aligns with QS. An-Nur:27 which commands to "*do not enter a house until you have a permission*", emphasizing the need to protect customer data from unauthorized access.

While previous studies have explored various dimensions of CRM, such as complaint resolution, customer orientation, and customer knowledge (Eltahir et al., 2021), they primarily focus on enhancing communication and interaction (Chen & Popovich, 2003). This narrow definition has led to a technological bias, with CRM seen solely as a tool for communication, neglecting its potential as a holistic strategic framework (Frow & Payne, 2009). Consequently, numerous CRM implementations have resulted in failures across industries (Dehghanpouri et al., 2020; Eltahir et al., 2021).

This gap is further magnified by the rise of sophisticated CRM systems in the digital age. These systems collect vast amounts of customer data, raising

concerns regarding data privacy and security. Indonesia, in particular, faces a high risk of data breaches due to weak data protection measures (Nurhaliza, 2021). Existing research on CRM does not adequately address this vulnerability, which undermines customer trust and loyalty, jeopardizing the very foundation of relationship management.

Therefore, this research addresses these critical limitations by proposing a novel approach. This study introduce Customer Data Protection (CDP) as a crucial new dimension of CRM. This expanded framework aims to create a more holistic and comprehensive approach to customer relationship management in the digital age. This study offers several key contributions, which are to refine the CRM concept by integrating data protection as an essential element in the digital era, examine the impact of CDP on customer loyalty and trust within the Indonesian context, and analyze the alignment of the proposed framework with Islamic principles regarding data privacy *(maqāṣid sharia)*.

This manuscript is divided into five sections. The introduction situates the research, highlights its novelty, and identifies gaps in existing studies. The next section reviews relevant literature. The third details the research methodology. The fourth presents and discusses the data. The final section summarizes findings, acknowledges limitations, and suggests future research directions.

LITERATURE REVIEW

Customer Relationship Management

Customer Relationship Management (CRM) is a strategic approach that focuses on creating and maintaining strong relationships between a company and its customers. Although the concept of CRM was initially presented by Stone et al. (1996), it was often defined similarly to Relationship Marketing (RM). However, Frow & Payne (2009) argued that CRM and RM are distinct concepts, with the former focusing solely on the company-customer relationship, while the latter encompasses relationships between the company and all its stakeholders.

CRM is a dynamic process of managing customer-company relationships to encourage mutually beneficial commercial exchanges and discourage unprofitable ones. Kotler (2012) defined CRM as a process that modifies consumer behavior over time, learns from interactions, customizes customer

treatment, and strengthens the bond between the customer and the company. The primary objectives of CRM are to improve service quality, provide solutions to consumer problems, and offer a good transaction experience, ultimately leading to the achievement of the company's goals and customer intentions in the long term (Irawan, 2019; Kaur, 2020; Saxena & Taneja, 2018; Shukla & Pattnaik, 2019; Siddiqi et al., 2018).

Hakim et al. (2021) and Xu & Walton (2005) recommended that companies should well-define their business objectives before initiating CRM. Identifying important strategic challenges pertaining to the established CRM initiative is essential for generating these objectives. Frow & Payne (2009) argued that creating relationships with customers requires a broader framework that extends beyond tactical advancements, such as specialized tools and technical systems. CRM should focus on creating knowledge-based relationships by transferring information to consumers and using this information to provide appropriate services based on consumer needs (Bhat & Darzi, 2016). Therefore, when companies are able to educate customers about the products/services offered concisely, it indicates that the company has established a better relationship with consumers. Educated consumers can develop trust, satisfaction, and loyalty, leading to a positive impact on the company, which in turn fosters a positive corporate image in the minds of consumers.

It aligned with Chen & Popovich (2003) who defined CRM as the integration of people, processes, and technology that can be applied by companies to understand consumer behavior and strengthen relationships. CRM is a comprehensive strategy that focuses on effectively managing interactions between companies and their customers, with the primary objective of encouraging customer retention. Successful CRM implementation can lead to increased consumer satisfaction and long-term profitability.
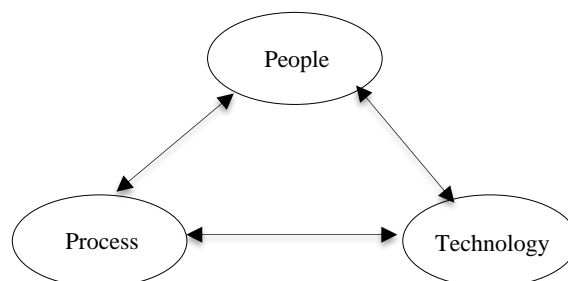

Figure 3. Original Framework of CRM by Chen & Popovich (2003)

Referring to Figure 2, the implementation and development of CRM are consistently adopted as strategic approaches by the company. Simultaneously, the company derives value from long-term marketing management activities, aiming to attain optimal levels of profitability by encouraging positive relationships with consumers and establishing their satisfaction and loyalty toward the company.

Kamrul Islam Shaon & Rahman (2015) distinguished CRM dimensions into management and customer relations, representing various social factors such as reliability, customization, customer attraction, customer retention, information technology, and responsiveness. Bhat & Darzi (2016) developed CRM dimensions into four categories: complaint resolution, customer empowerment, and customer knowledge, representing the aspects of people, process, and technology as initiated by the original concept of CRM.

A review of CRM studies over the last 10 years reveals that the concept emerged in 1996 and gained popularity in 2019. Earlier studies positioned CRM as a relationship quality and strategic approach to create and maintain relationships between the company and its customers. However, from 2017 onwards, the majority of studies focused on CRM implementation as a technological innovation and approach, neglecting other aspects of CRM. This deviates from the original concept of CRM, which emphasizes the interconnectedness of people, processes, and technology (Chen & Popovich, 2003).

Table 1 The List of CRM's Perspective

Year	Authors	CRM Perspective Categories		
		Relationship Quality	Management & Strategy	Technology
Under 2016	Stone et al. (1996)	√	√	√
	Chen & Popovich (2003)	√	√	√
	Frow & Payne, (2009)	√	√	√
	Amoako et al. (2012)	√		
	Long et al. (2013)	√	√	
	Jindal (2014)	√		
	Femina & Sudheep (2015)			√
	Kamrul Islam Shaon & Rahman, (2015)	√		
2016	Al Arif & Nurasiah (2016)	√	√	
	Wali & Wright (2016)		√	
	Bhat & Darzi (2016)	√	√	
	Orenga-Roglá & Chalmeta (2016)			√
	Debnath et al. (2016)	√		

Year	Authors	CRM Perspective Categories		
		Relationship Quality	Management & Strategy	Technology
	Ghazian et al. (2016)	√		√
	Ghalenooie & Sarvestani (2016)		√	
	Soltani & Navimipour (2016)			√
	Elena (2016)			√
2017	Hafeez & Abbas (2017)	√		
	Haislip & Richardson (2017)		√	√
	Iriqat & Daqar (2017)			√
	Haenlein (2017)		√	
	Changiz Valmohammadi (2017)	√		
	Mohammed A et al. (2017)			√
	González-Benito Ó et al. (2017)		√	√
	Agnihotri et al. (2017)	√		√
	Chetioui Y (2017)	√		
2018	Siddiqi et al. (2018)		√	√
	Saxena & Taneja (2018)	√		√
	Dalla Pozza et al. (2018)		√	
	Hossain (2018)		√	
	Soltani et al. (2018)			√
	Kabede & Tagegne (2018)	√		
	Powell A et al. (2018)	√		√
	Aiyer et al. (2018)	√	√	
	Kamboj et al. (2018)	√		√
	Rodriguez et al. (2018)	√		√
2019	Dewnarain et al. (2019)			√
	Shukla & Pattnaik (2019)			√
	Amril et al. (2019)	√		
	Alokla et al., (2019)	√		√
	Etim Udoh et al. (2019)		√	
	Fernandes & Pinto (2019)	√		
	Auliana et al. (2019)			√
	Lim et al. (2019)	√		
	Masa'deh et al., (2019)	√		
	Anshari et al. (2019)			√
	Foltean et al. (2019)			√
	Rafiki et al., (2019)		√	√
	S. H. Hassan et al. (2019)			√
	Ghazaleh & Zabadi (2019)			√
2020	Berraies et al. (2020)	√		
	Nguyen et al., (2020)			√
	Mena & Zaveri (2020)		√	√
	Steiner & Brandhoff (2022)		√	
	AlQershi et al. (2020)	√	√	√
	Sofi et al. (2020)	√		
	Baashar et al. (2020)			√
	Elkhansa & Hamid (2020)			√
	Marolt et al. (2020)			√
	Raja, et all (2020)			√
	Chaudhari (2020)	√	√	√

Year	Authors	CRM Perspective Categories		
		Relationship Quality	Management & Strategy	Technology
	Nguyen et al. (2020)		√	
	Brahami (2020)	√		
	Al Karim & Habiba (2020)	√		√
2021	Makudza (2021)	√		
	Guerola-Navarro, et al (2021)			√
	Noviana (2021)			√
	Butt (2021)			√
	Saqib & Zarine (2021)		√	√
	Jami Pour & Hosseinzadeh (2021)	√		
	Miremadi & Ghanadiof, (2021)		√	
	Dennis Rydarto Tambunan et al. (2021)	√		√
	Al-Gasawneh et al. (2021)	√		√
	Kumar & Kalairaja, (2021)	√		
	Gopalsamy & Gokulapadmanaban, (2021)	√		
	Rabeya Khatun et al. (2021)		√	√
	Eltahir et al. (2021)			√
	Kalia et al. (2021)	√		
	Koponen et al. (2021)	√		
	Sajid Butt (2021)			√
2022	Arslan et al. (2022)			√
	Munandar et al. (2022)		√	
	Chaithanapat et al. (2022)		√	
	Pashaie et al (2022)		√	
	Chatterjee, et all (2022)			√
	Hanaysha & Al-Sjaikh (2022)		√	√
	Chaudhuri (2022)			√
	Doddy (2022)			√
	Suoniemi, et al (2022)			√
	Vecchio (2022)			√
2023	Alshurideh (2023)	√		
	Rahman, et al (2023)			√
	Yerpude & Sonica (2023)			√
	Chatterejee (2023)			√
	Helen M. Dah, et al (2023)	√		√
	Kumar Deb, et all (2023)	√	√	
	Cheng, et al (2023)			√
	Total	43	30	58

CRM and Customer Satisfaction

Several scholars argued that CRM is a concept which focuses on establishing such an effective communication to engage with customers. Proper implementation of CRM allows companies to go beyond selling and marketing products, enabling them to address and fulfill consumers' desires (Elkhansa & Hamid, 2020; Nuralam, 2016; Sofi et al., 2020), leading to customer trust and satisfaction (Dehghanpouri et al., 2020). CRM has the potential to build

customer relationships, encourage satisfaction and loyalty, and strengthen long-term profitability (Munandar et al., 2022). Numerous studies have reported the beneficial results of CRM implementation, including increased customer satisfaction (Chikako & Hamu, 2021; Khan et al., 2022; Palazzo et al., 2021) and loyalty (Gopalsamy & Gokulapadmanaban, 2021; R. S. Hassan et al., 2015; Kalia et al., 2021; Lubis et al., 2020; Munandar et al., 2022; Zulkifli & Tahir, 2011).

CRM enables companies to gather and analyze customer data, understand preferences and behaviors, and provide personalized interactions and tailored product recommendations (Dalla Pozza et al., 2018). Efficient communication with customers, such as personalized emails, timely responses, and proactive communication, can improve customer trust and foster positive relationships (Trif et al., 2019). CRM also provides a comprehensive view of customers across various touchpoints, allowing for personalized engagement, customer segmentation, and optimized marketing strategies, ultimately leading to increased customer satisfaction and brand loyalty (Peelen & Beltman, n.d.).

As Indonesia emerges as a promising market for the digital economy, protecting customer personal data has become a prominent challenge. Securing sensitive customer data is crucial for building customer trust and satisfaction, and avoiding customer switching behavior (Nurhaliza, 2021). Therefore, securing the customer's sensitive data is crucial to ensure the customer's convenience while using the company's products and services. This is because prioritizing customer data protection plays a significant role for a company to build customer trust and satisfaction, thereby avoiding customer switching behavior.

Relationship Marketing, Customer Relationship Management, and Customer Management

Relationship Marketing (RM) is a strategic effort to build strong relationships between all stakeholders involved with the company (Grönroos, 1991). RM addresses the limitations of Transactional Marketing (TM) by emphasizing long-term, cost-effective relationships with customers, suppliers, employees, and other profitable partners (Elkhansa & Hamid, 2020; Etim Udoh et al., 2019; Soltani et al., 2018). The fundamental distinction between RM, CRM, and CM is that RM discusses the relationship between all stakeholders involved with the company (Jain et al., 2022; Steinhoff & Palmatier, 2021), while CRM and

CM focus specifically on the relationship between the company and the customer/consumer (Etim Udoh et al., 2019; Hafeez & Abbas, 2017).

CRM is a strategic development of RM that focuses on establishing relationships between companies and consumers. The output of the strategic approach between RM and CRM differs, with RM offering a broader perspective and orientation, while CRM emphasizes narrower functional management and marketing perspectives (Aka et al., 2016; Dean et al., 2015; Parvatiyar & Sheth, 2001). Successful CRM implementation requires the right business and strategy identification, such as transferring knowledge to customers, creating customer segmentation, managing customer value creation, developing an integrated strategy, and using relevant data and technology to increase customer loyalty (Bhat & Darzi, 2016; Frow & Payne, 2009; Haislip & Richardson, 2017; Harryani, 2017).

Customer Management (CM) is defined as the technical tools of CRM implementation regarding customer engagement, such as campaigns, sales force automation, web-enabled personalization, and call center management (Frow & Payne, 2009). CM processes the output gathered from CRM to compile strategic steps and decisions to increase the company's capability to acquire new consumers and retain current customers, ultimately increasing satisfaction and loyalty.
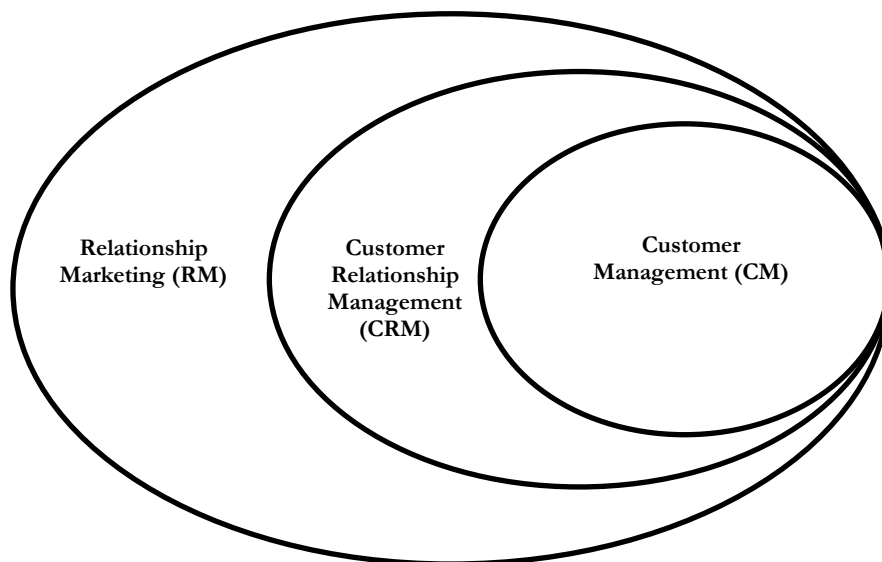

Figure 1. The Position of RM, CRM, and CM

Maqāṣid Sharia as the Parameter of *Muamalah* Activity

The doctrine of *maqāṣid al-sharia* is a cornerstone in Islamic jurisprudence that mandates adherence to sharia principles by individuals, entities, or corporations to ensure the attainment of societal welfare. The quintessential aim of *maqāṣid al-sharia* is the establishment, dissemination, and preservation of well-being, concurrently with the aversion of detriment, as encapsulated in the axiom *'dar'u al-mafasid wa jalb al-maslahah'*. This deliberate aversion of detriment facilitates the realization of *maslahah*, a term encapsulating 'benefit' or 'public interest,' indicative of actions that confer a multitude of advantages, encompassing economic gain and personal gratification. Therefore, any endeavor abundant in benefits is congruent with the tenets of *maslahah*. In light of this, *maqāṣid al-sharia* is esteemed for its intrinsic merit, instrumental in the fulfillment of the aspirational objectives delineated by sharia regulations (Ibrahim, 2015).

Linguistically, the term '*maqāṣid al-sharia*' can be understood as the intended purposes to be achieved by every divine law, guiding individuals toward the realization of social justice and wellbeing in both the present life and the hereafter. Hence, this concept is described as possessing intrinsic value that plays a crucial role in fulfilling the objectives of the regulation. Furthermore, according to Wahbah al-Zuhaili, this concept is defined as the core value of sharia, implicit throughout the entirety of the law/regulation, or it can also be articulated as the ultimate goal of sharia itself. Additionally, Yusuf al-Qaradawi interprets this concept as the primary purpose inherent in every law and Islamic text, intended to be applied in life, covering commands, prohibitions, and blessings (Kamri et al., 2014).

Several prominent Islamic scholars utilize the concept of *maqāṣid sharia* as the cornerstone metric for evaluating economic activity in relation to universal well-being. This multifaceted concept encompasses a set of indicators that reflect the degree to which individuals, groups, or commercial entities adhere to principles that promote the realization of social well-being. Notably, Al-Juwaini, Al-Ghazali, and Al-Shatibi all played pivotal roles in systematizing and emphasizing the centrality of *maqāṣid sharia*. They argued that its application is essential across all spheres of human activity, including the economic domain, to ensure the achievement of social and human welfare in both the earthly realm and the hereafter (Ibrahim & Kamri, 2016).

METHODOLOGY

Research Design

This study employs an explanatory research design, utilizing a quantitative approach and a survey method. The survey instrument serves to gather data on the implementation of CRM as a strategic framework. Purposive sampling was employed to select participants, focusing on individuals who meet specific criteria. These criteria include an age range of ±20 years and demonstrably using mobile payment services (m-payment) for a minimum of three years. The research sample encompasses users of various m-payment platforms, such as m-banking, GoPay, OVO, Dana, LinkAja, and others. The selection of this specific population is justified by the heightened vulnerability of the financial sector to cyberattacks targeting the theft of personal data for criminal purposes.

To determine the appropriate sample size, Hair's (2010) formula was utilized:

$$N = \text{Number of Manifest Variables} \times 10 \tag{1}$$

Following this formula, the minimum recommended sample size is calculated as:

$$N = 24 \times 10 \quad N = 240$$

However, the data collection process yielded a total of 400 responses, exceeding the minimum recommended sample size. Confirmatory Factor Analysis (CFA) of the second order will be employed to examine and analyze the data pertaining to the proposed CRM model. The mathematical representation of the research model will be presented subsequently.

Table 2. The Latent Variable of CRM

$e1 = \lambda x_1\, \xi_1 + \delta_1$	$e11 = \lambda x_{11}\, \xi_{11} + \delta_{11}$	$e21 = \lambda x_{21}\, \xi_{21} + \delta_{21}$
$e2 = \lambda x_2\, \xi_2 + \delta_2$	$e12 = \lambda x_{12}\, \xi_{12} + \delta_{12}$	$e22 = \lambda x_{22}\, \xi_{22} + \delta_{22}$
$e3 = \lambda x_3\, \xi_3 + \delta_3$	$e13 = \lambda x_{13}\, \xi_{13} + \delta_{13}$	$e23 = \lambda x2_3\, \xi_{23} + \delta_{23}$
$e4 = \lambda x4\, \xi_4 + \delta_4$	$e14 = \lambda x_{14}\, \xi_{14} + \delta_{14}$	$e24 = \lambda x_{24}\, \xi_{24} + \delta_{24}$
$e5 = \lambda x_5\, \xi_5 + \delta_5$	$e15 = \lambda x_{15}\, \xi_{15} + \delta_{15}$	$e25 = \lambda x_{25}\, \xi_{25} + \delta_{25}$
$e6 = \lambda x_6\, \xi_6 + \delta_5$	$e16 = \lambda x_{16}\, \xi_{16} + \delta_{16}$	
$e7 = \lambda x_7\, \xi_7 + \delta_7$	$e17 = \lambda x_{17}\, \xi_{17} + \delta_{17}$	

$e8 = \lambda x_8\,\xi_8 + \delta_8$	$e18 = \lambda x_{18}\,\xi_{18} + \delta_{18}$
$e9 = \lambda x_9\,\xi_9 + \delta_9$	$e19 = \lambda x_{19}\,\xi_{19} + \delta_{19}$
$e10 = \lambda x_{10}\,\xi_{10} + \delta_{10}$	$e20 = \lambda x_{20}\,\xi_{20} + \delta_{20}$

Building upon the previous ly identified latent variables, the research framework is depicted in Figure 2.
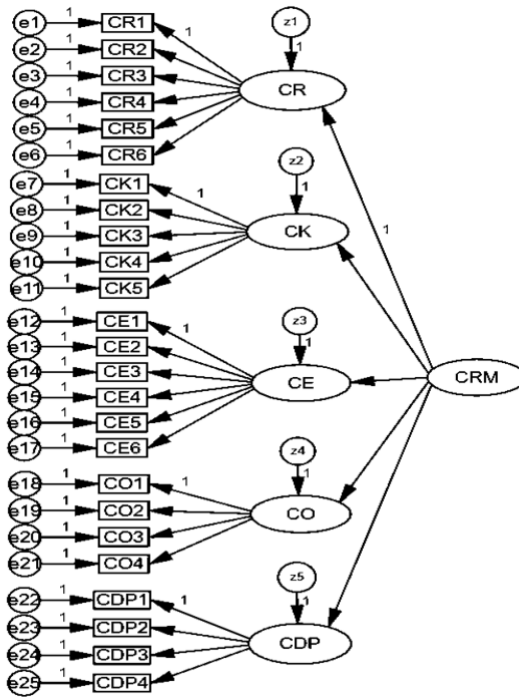

Figure 2. Research Framework

Research Instrument

To develop a comprehensive CRM framework, this research employs a multi-dimensional approach based on established studies. Five key CRM dimensions are measured using indicators from relevant literature. Complaint Resolution (CR) focuses on complaint handling efficiency and regulatory compliance (Bhat & Darzi, 2016; Galitsky & De La Rosa, 2011). Customer Knowledge (CK) assesses understanding customer needs, providing accurate information, and maintaining communication channels (Al Karim & Habiba, 2020; Bhat & Darzi, 2016). Customer Empowerment (CE) evaluates empowering customers

through self-service, social media, and personalized communication (Bhat & Darzi, 2016).

Table 3 Indicator of Measurement

Variable	Dimension	Indicator	Source
Customer Relationship Management (CRM)	Complaint Resolution (CR)	Good acceptance of customer complaints An effective compliant processing time Good feedback of customer complaints Ease of access to customer complaint services Good human resources in handling customer complaints The ability of bank in resolve complaint rigidly aligns with regulation	(Bhat & Darzi, 2016; Galitsky & De La Rosa, 2011)
	Customer Knowledge (CK)	Two-way communication channel services Product and Service Information The ability of bank to provide explanation related to customer transactions with accurate data The ability of bank in understanding customer needs Serving with service policies and operational standard	(Al Karim & Habiba, 2020; Bhat & Darzi, 2016)
	Customer Empowerment (CE)	Self-service facilities Social Media campaign Periodic review of feedback Customer on boarding Personalized messages	(Bhat & Darzi, 2016)
	Customer Orientation (CO)	Periodic review of customer satisfaction survey High dedication in providing convenience transaction Committed to maintain good relationship with customer Appreciation (gift, award, etc.) for customers	(Bhat & Darzi, 2016; Galitsky & De La Rosa, 2011; Trif et al., 2019)
	Customer Data Protection (CDP)	Protecting customer personal data legally The usage of data is only for transaction OTP code security Strict security system for technology-based applications	(S. (Joseph) Chen et al., 2023)

Customer Orientation (CO) measures commitment to customer satisfaction through surveys, convenience, and relationship-building (Bhat & Darzi, 2016; Galitsky & De La Rosa, 2011; Trif et al., 2019). Customer Data Protection (CDP) assesses legal data protection, restricted data usage, secure transactions, and robust security systems (S. (Joseph) Chen et al., 2023). A detailed table outlining the specific indicators for each dimension is presented in Table 3.

RESULT AND DISCUSSION

CRM Dimensions and Measurement

This study encompasses five key dimensions of Customer Relationship Management (CRM): complaint resolution (CR), customer knowledge (CK), customer empowerment (CE), customer orientation (CO), and customer data protection (CDP). An interval scale was employed to measure each indicator based on respondent answers. A Likert scale with seven response categories ranging from 1 ("strongly disagree") to 7 ("strongly agree") was utilized. The specific categories and their corresponding interpretations are:

- 1-2.00: Very Low
- 2.01-3.40: Low
- 3.41-4.60: Moderate
- 4.61-5.80: High
- 5.81-7.00: Very High

These classifications facilitate the interpretation of results by situating measured values within defined ranges and assessing their significance.

As presented in Table 4, Customer Data Protection (CDP) emerged as the dimension with the highest average score based on customer perceptions. This finding highlights the importance of fostering trust in the digital age by ensuring the protection of customer data privacy. Conversely, complaint resolution (CR) and customer knowledge (CK) exhibited the lowest average scores. These results suggest that the Sharia bank should prioritize enhancing its complaint resolution mechanisms and improving customer understanding of Sharia banking processes.

Table 4. Respondent Description and Average Scores

Code	Indicator	Average	Description
CR1	Good acceptance of customer complaints	5.26	Good
CR2	An effective compliant processing time	4.11	Modrrate
CR3	Good feedback of customer complaints	4.35	Moderate
CR4	Ease of access to customer complaint services	4.27	Moderate
CR5	Good human resources in handling customer complaints	4.28	Moderate
CR6	The ability of bank in resolve complaint rigidly aligns with regulation	5.17	Good
CK1	Two-way communication channel services	5.26	Good
CK2	Product and Service Information	4.11	Moderate
CK3	The ability of bank to provide explanation related to customer transactions with accurate data	4.35	Moderate
CK4	The ability of bank in understanding customer needs	4.27	Moderate
CK5	Serving with service policies and operational standard	4.28	Moderate
CE1	Self-service facilities	5.50	Good
CE2	Social Media campaign	5.57	Good
CE3	Periodic review of feedback	5.45	Good
CE4	Customer on boarding	5.48	Good
CE5	Personalized messages	5.75	Good
CO1	Periodic review of customer satisfaction survey	5.51	Good
CO2	High dedication in providing convenience transaction	5.74	Good
CO3	Committed to maintain good relationship with customer	5.73	Good
CO4	Appreciation (gift, award, etc.) for customers	5.77	Good
CDP1	Protecting customer personal data legally	5.74	Good
CDP2	The usage of data is only for transaction	5.84	Very Good
CDP3	OTP code security	5.65	Good
CDP4	Strict security system for technology-based applications	5.81	Very Good

(Source: Data Processing, 2023)

Assessment of Construct Validity and Reliability

Following the identification of dimensions with the highest and lowest average scores, this study employed confirmatory factor analysis of the second order (CFA-2nd) to evaluate the effectiveness of the chosen constructs in elucidating the designated variables. Construct validity is established when factor loading values exceed 0.50 (Bahri & Zamzam, 2015). As shown in Table 5, all constructs exhibit factor loading values greater than 0.50, supporting the inference that the entirety of the utilized constructs demonstrates construct validity.

Furthermore, construct reliability is considered acceptable when composite reliability (CR) surpasses 0.70 or average variance extracted (AVE) exceeds 0.50 (Wijanto, 2008). In this study, all constructs, with the exception of complaint resolution (CR), exhibit CR values exceeding 0.70 and AVE surpassing 0.50.

Table 5. Loading Factor Results

Latent Variable	Indicator	Loading Estimate*	Construct Realibility	Average Variance Extracted
Complaint Resolution	CR1	0.990		
	CR2	0.990		
	CR3	0.778	0.874311	0.545
	CR4	0.690		
	CR5	0.704		
	CR6	0.611		
Customer Knowledge	CK1	0.802		
	CK2	0.790		
	CK3	0.790	0.879006	0.592
	CK4	0.801		
	CK5	0.833		
Customer Empowerment	CE1	0.552		
	CE2	0.640		
	CE3	0.601	0.831797	0.557
	CE4	0.822		
	CE5	0.803		
Customer Orientation	CO1	0.843		
	CO2	0.822	0.881952	0.651
	CO3	0.810		
	CO4	0.862		
Customer Data Protection	CDP1	0.853		
	CDP2	0.831	0.900293	0.693
	CDP3	0.854		
	CDP4	0.860		

(Source: Data Processing, 2023)

Path Analysis and Model Fit

Following the evaluation of construct validity and reliability through factor loadings, composite reliability (CR), and average variance extracted (AVE), this study employed path analysis to assess the relationships between the identified CRM dimensions. Table 6 provides evidence supporting the adequacy of the proposed CRM model in depicting the CRM concept. All latent constructs of CRM achieve satisfactory Goodness-of-Fit (GoF) indices, as detailed in the table below:

Table 6. Goodness-of-Fit (GoF) Results

Index Measurement	Value	*Cut of value*	Description
Chi Square	343.815	< Chi-Square Tabel (460.33)	Good Fit
CMIN/Df	1.763	< 0.20	Good Fit
RMSEA	0.043	< 0.70	Good Fit
GFI	0.930	> 0.90	Good Fit
AGFI	0.909	> 0.90	Good Fit
CFI	0.979	> 0.90	Good Fit
TLI	0.975	> 0.90	Good Fit

(Source: Data Processing, 2023)

Path Analysis Results

Table 7 that presents the path estimates for the proposed CRM model, along with Figure 2, provide empirical support for the significance of each CRM dimension: Complaint Resolution (CR), Customer Knowledge (CK), Customer Empowerment (CE), Customer Orientation (CO), and Customer Data Protection (CDP). This is evidenced by standardized path estimate values exceeding 0.60 and p-values less than 0.000, indicating statistical significance at the 0.05 level.

Table 7. Path Estimation Results

Paths	Std. Estimate	P-Value
CR ← CRM	0.701	0.000
CK ← CRM	0.934	0.000
CE ← CRM	0.890	0.000
CO ← CRM	0.998	0.000
CDP ← CRM	0.850	0.000

(Source: Data Processing, 2023)

These findings imply that the proposed model effectively reflects the CRM concept, enabling companies to build and foster stronger customer relationships, ultimately leading to mutually beneficial and long-term connections. As highlighted by Chen & Popovich (2003), successful CRM implementation hinges on the simultaneous integration of three fundamental dimensions: people, process, and technology. In the context of Islamic banks, achieving their envisioned goals necessitates incorporating these integrated aspects within each CRM dimension.
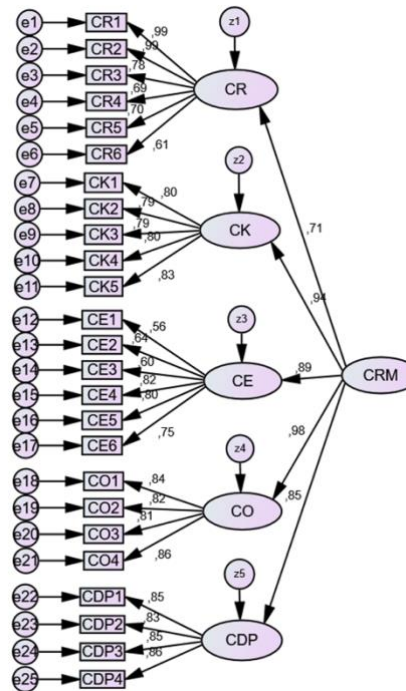
Figure 2. Confirmatory Factor Analysis (CFA) 2nd Order Result

Building upon the aforementioned findings, this research has successfully constructed a CRM model that expands upon traditional frameworks by encompassing five comprehensive dimensions, each integrating the critical aspects of people, process, and technology.

The Developed Customer Relationship Management Model

This section delves into the analysis of the developed Customer Relationship Management (CRM) model, highlighting the significance of each dimension and its impact on customer satisfaction and loyalty. The findings are presented alongside relevant academic literature to strengthen the arguments.

Complaint Resolution (CR)

The results (Table 7) reveal that Complaint Resolution (CR) emerges as a significant dimension of CRM. This aligns with prior research by Angelovska et al. (2022) and Bhat & Darzi (2016), highlighting the importance of effective complaint handling in enhancing customer relationships. Minimizing negative impacts of customer dissatisfaction and subsequent defection necessitates careful consideration of customer complaint behavior by companies (Aksoy &

Yilmaz, 2022). CR, the process of addressing customer complaints, involves acknowledging the complaint and collaborative efforts to reach a resolution. Understanding customer complaint behavior is crucial for companies to minimize dissatisfaction and enhance satisfaction and brand loyalty. Effective complaint resolution presents an opportunity to recover lost trust and convert dissatisfied customers into loyal ones. It demonstrates the company's commitment to rectifying mistakes and prioritizing customer well-being. Additionally, resolving complaints effectively helps retain customers who might consider switching to competitors. Customers are more likely to stay when they feel their concerns are addressed promptly and seriously, leading to a positive company image.

However, the study also reveals that CR has the lowest estimated value among all dimensions. This suggests a potential lack of awareness within the Indonesian digital industry regarding robust complaint handling and resolution processes. This aligns with the respondents' answers (Table 4), which indicate inefficiencies in complaint resolution practices at some digital service companies, including long processing times, inadequate feedback, and difficulties in accessing complaint services. Therefore, it is recommended that the bank evaluate and improve its complaint handling services across all branches. Streamlining the process and ensuring prompt resolution will enhance customer satisfaction and create a positive brand image.

Customer Knowledge (CK)

Customer Knowledge (CK) is another dimension substantiated as significantly influencing CRM. This finding echoes previous research by Li & Xu (2022) and Terho et al. (2022), suggesting that increased company openness and engagement with the public fosters easier customer engagement and potentially attracts trust. Additionally, a company's ability to comprehend its customers directly translates to a higher likelihood of establishing robust customer relationships. While the CK dimension receives a moderate assessment in this study (Table 5), the ideal objective of CRM is to facilitate a mutual exchange of information or insights between customers and Islamic banks. This moderate rating can be attributed to factors such as the relatively low level of implemented customer information policies, the diverse characteristics of customers regarding information sharing, and the challenges faced by companies in obtaining accurate customer-related information reports.

Nevertheless, despite receiving a moderate rating, this dimension can significantly contribute to increased customer satisfaction and loyalty by providing valuable information, empowering customers to make informed decisions, and fostering a positive brand relationship. By informing customers with valuable product and service information, trust is triggered as customers who understand and appreciate rewards are more likely to actively participate in loyalty programs and remain committed to the company or brand. Additionally, providing accurate and reliable information establishes the brand as trustworthy and credible. Consequently, fostered trust leads to increased customer confidence in the brand, ultimately fostering satisfaction and loyalty. Therefore, this dimension plays a pivotal role in fostering customer satisfaction and loyalty by promoting understanding, empowerment, and trust. Well-informed customers are more likely to have positive experiences and develop lasting relationships with the brand or company.

Customer Empowerment (CE)

Furthermore, this study empirically confirms Customer Empowerment (CE) as a significant dimension of CRM, aligning with the findings of Parahiyanti et al. (2023). Their research suggests that enhanced customer empowerment positions consumers as integral parts of an organization. This concept offers a strategic advantage for companies, facilitating the acquisition of information regarding specific product and service types that customers need to fulfill their requirements. The importance of customer empowerment in understanding customer behavior and fostering loyalty cannot be overstated.

By definition, customer empowerment refers to the process of providing customers with the necessary tools, information, and resources. This empowers them to make informed decisions, take control of their interactions with the business, and actively engage in customer experiences. Furthermore, it allows customers to personalize their experiences based on their preferences. This approach reflects a company's commitment to customer engagement. Companies that provide features that accommodate customer needs demonstrate openness to collaboration regarding the selection of appropriate products or services. Such collaboration in product development or service improvement showcases the company's value for customer input, ultimately leading to increased satisfaction and fostering loyalty. This aligns with Parahiyanti et al. (2023) who suggest that enhanced customer empowerment positions consumers as integral parts of the organization. The research findings

in Table 5 indicate that customer empowerment in some companies within the digital era is well-categorized. The success of customer empowerment hinges on two key practices: reviewing customer complaint feedback and providing personalized messages that facilitate customer information retrieval.

Based on the findings, this study recommends that Islamic banks adopt CRM technology that leverages Artificial Intelligence (AI) to review and respond to customer complaints. Additionally, CRM software can be employed to collect customer information. This empowers customers to independently resolve challenges they face through the use of technology-based CRM solutions. This strategy fosters a more active engagement between the company and the customer. Engaged customers who actively participate in loyalty programs, surveys, or community forums are more likely to be satisfied.

Customer Orientation (CO)

Customer Orientation (CO) emerges as another significant dimension of CRM in this study. This finding aligns with Deshpandé et al. (2012) who emphasize the importance of a customer-centric focus as a key strategy for fostering positive relationships between companies and customers.

Customer orientation is a strategic approach that places the customer at the center of all management and marketing decisions, including the sales process. It involves actively seeking to understand customer needs, preferences, and expectations. By implementing this approach, companies can tailor their products, services, and interactions to better meet customer requirements, ultimately leading to higher satisfaction. Additionally, a well-implemented CO strategy can be a powerful tool for customer retention. This dimension equips companies with the knowledge to empower customers and accurately assess their needs, allowing them to address customer pain points effectively.

A company that prioritizes a customer-oriented approach demonstrates its commitment to its customers. This translates to a focus on understanding and meeting customer needs, ultimately reducing their frustrations. Furthermore, customer orientation facilitates brand building by enabling companies to adapt products and services to resonate with different market segments based on their demographics. Research by Ferrer-Estévez & Chalmeta (2023) and Srivastava et al. (2023) provides evidence that the effective implementation of CO within an organization fosters sustainable, long-term relationships with customers.

This translates to increased customer satisfaction and loyalty as customers experience convenience in using the company's products and services.

In the context of the digital industry, the successful application of CO hinges on customer appreciation. By demonstrating appreciation for their customers, companies can cultivate positive perceptions, encouraging them to establish long-term relationships. This fosters a sense of value for customers, enhancing their productivity and satisfaction within the digital landscape. The research findings further highlight the crucial nature of CO, evidenced by its achievement of the highest path estimate (0.998) compared to other dimensions. This suggests that pursuing customer orientation allows companies to gain a clear understanding of their target market's needs, potentially leading to maximum customer satisfaction.

Customer Data Protection (CDP)

This research introduces Customer Data Protection (CDP) as a novel dimension of CRM, and the findings demonstrate its significance. The results underscore the critical role of data privacy in fostering positive customer relationships within the digital age (Dehghanpouri et al., 2020). Companies must prioritize reassuring customers about the confidentiality of their data and private information. This fosters a sense of security and comfort for customers, ultimately contributing to their satisfaction. Security is a paramount consideration for customers when choosing products or services. When they have confidence that their personal information is secure, they are more likely to feel assured in their interactions with the company. This heightened sense of security translates to increased customer satisfaction and brand loyalty.

Furthermore, the protection of privacy and personal data significantly influences the development of the national digital economy. Data has become a new and vital resource driving business growth in the digital era. It also functions as a form of personal identity, potentially used for various purposes (Trias Palupi Kurnianingrum, 2020). The pervasiveness of the digital age has led to an increasingly uncontrollable flow of data. The widespread adoption of internet technology across all sectors has resulted in a situation where data owners often lose control over their personal information (Tempo Online, 2019). This presents a significant threat, particularly given the rapid advancements in information technology that have created a new dynamic within the commercial landscape.

In light of these developments, prioritizing customer data protection and security is crucial, especially as Indonesia emerges as a potential leader in the Southeast Asian digital economy. This focus on data protection aligns with Indonesian regulations, including Law No. 11/2008 and Regulation of the Minister of Communication and Information of Indonesia Number 20/2016, which safeguard customer protection within the realm of Information and Electronic Transactions.

Therefore, based on the discussion above, this research proposes a developed CRM model as a strategic framework, which is called "5C CRM". This can be used by the company to compete in the global marketplace in order to foster customer satisfaction.
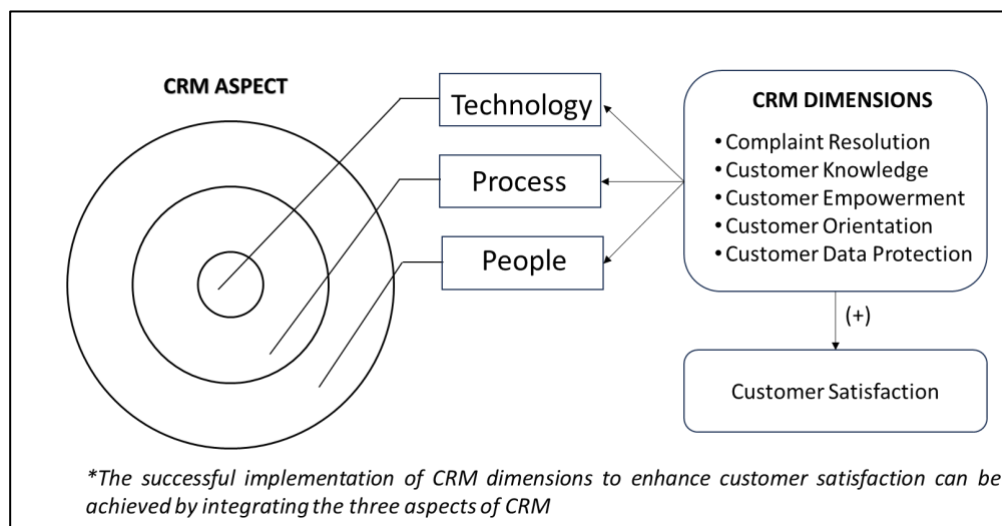

Figure 4. Development of CRM Framework

Islamic Overview on Customer Data Protection

Protecting customer data privacy also aligns with the Islamic legal principle of *maqāṣid sharia*, specifically *hifdz al-nafs* (protecting life). By securing customer personal information, companies safeguard customers from potential dangers associated with cybercrime and unauthorized access to personal data. This aligns with the Quranic verse An-Nur:27 which states "do not enter a house until you have permission." This verse can be interpreted to mean that companies have a responsibility to secure and protect customer data from anyone who might attempt to steal it. Ultimately, customers are more likely to remain satisfied and loyal to businesses that actively safeguard their personal

information from potential misuse. The following subsections discuss how protecting customer data privacy aligns with Islamic principles.

Hifz al-Nafs and the Digital Age

Hifz al-nafs, a principle in Islamic law, emphasizes the importance of protecting human life and well-being. In the digital age, personal information can be a source of vulnerability. Data breaches can expose individuals to various dangers, including:

1. Financial Fraud – Stolen financial information can be used for unauthorized purchases or identity theft, causing significant financial hardship.
2. Social Harm – Breached personal data can be used for social engineering attacks, harassment, or reputational damage.
3. Psychological Distress – The fear of data breaches and the consequences of identity theft can cause anxiety and stress.

By safeguarding customer data, companies contribute to *hifz al-nafs* by mitigating these risks and protecting customers from potential dangers.

Quranic Verse and the Digital Analogy

The Quranic verse An-Nur:27, which emphasizes obtaining permission before entering a physical space, offers a powerful metaphor for the digital age. Customer data can be understood as a digital "house" containing personal information. This interpretation compels companies to act as responsible stewards of this digital space, preventing unauthorized access just as one would not enter a physical house without permission. This aligns with the core Islamic legal principle of *hifz al-nafs*, which emphasizes the protection of human life and well-being.

Beyond Physical Harm

The potential dangers associated with data breaches extend beyond physical harm. Cybercrime can inflict emotional distress, reputational damage, and significant financial loss. Data breaches can expose individuals to social engineering attacks, harassment, and identity theft. The fear of such consequences can cause anxiety and stress. By prioritizing data protection, companies safeguard customers from these multifaceted threats, aligning with

the broader interpretation of *hifz al-nafs*, which encompasses not only physical safety but also mental and emotional well-being.

Building Trust and Loyalty through Ethical Practices

Customers who feel confident that companies are taking steps to secure their data experience a heightened sense of security and respect. This fosters positive customer relationships and loyalty. Companies that prioritize data security demonstrate their commitment to Islamic principles and ethical business practices, further strengthening customer trust (Kamri et al., 2014).

Balancing Needs in the Digital Landscape

It is important to acknowledge that tensions can arise between data security and other considerations such as personalization or user convenience. However, Islamic principles encourage striking a balance. Companies can leverage data responsibly while prioritizing customer privacy and security. This approach adheres to both the principle of *hifz al-nafs* and the broader notion of ethical business conduct within the digital landscape (Ibrahim, 2015).

CONCLUSION

This research challenges the prevailing view of CRM as solely a technological innovation. It redefines CRM as a strategic approach focused on cultivating positive relationships between companies and customers. This holistic approach integrates people, processes, and technology to ensure successful CRM implementation. By moving beyond a purely technological focus, companies can avoid the pitfalls of failed CRM initiatives. This study successfully develops and validates a new CRM model. The model's strength is evidenced by its Goodness of Fit value. It encompasses five essential dimensions: complaint resolution, customer knowledge, customer empowerment, customer orientation, and, crucially, customer data protection— a novel dimension particularly relevant for the burgeoning digital economy in Southeast Asia, including Indonesia.

The empirical findings demonstrate that each dimension contributes to a robust CRM framework. This framework transcends a mere set of tools, transforming into a strategic approach encompassing processes undertaken by companies to cultivate positive relationships with both internal and external stakeholders. It fosters value preservation and enhanced customer satisfaction. Furthermore,

the research recommends establishing dedicated CRM divisions within each branch to facilitate easy access and efficient service delivery for customers. The findings also suggest the importance of establishing dedicated CRM departments within each branch, improving accessibility for customers and enabling companies to address their needs efficiently. Interestingly, the study revealed Customer Empowerment as the most crucial dimension. By prioritizing understanding customer needs and expectations, companies can demonstrate their commitment to customer well-being and build strong, lasting relationships.

This research has limitations. Its focus on Indonesia within a specific industry restricts the generalizability of the findings. Future research could explore additional dimensions, such as the integration of Artificial Intelligence (AI) features, to create a more comprehensive framework for addressing contemporary managerial issues in the digital era. Furthermore, comparative studies examining CRM implementation across ASEAN countries could offer valuable insights.

REFERENCES

Abidin, M. A. Z., Nawawi, A., & Salin, A. S. A. P. (2019). Customer data security and theft: a Malaysian organization's experience. *Information & Computer Security*, *27*(1), 81–100. https://doi.org/10.1108/ICS-04-2018-0043

Aka, D. O., Kehinde, O. J., & Ogunnaike, O. O. (2016). Relationship Marketing and Customer Satisfaction: A Conceptual Perspective. *Binus Business Review*. https://doi.org/10.21512/bbr.v7i2.1502

Aksoy, M., & Yilmaz, Ö. (2022). Consumer Complaints and Complaint Management in the Tourism Sector. In *Managing Risk and Decision Making in Times of Economic Distress, Part A* (Vol. 108, pp. 95–111). Emerald Publishing Limited.

Al Karim, R., & Habiba, W. (2020). Effects of CRM Components on Firm's Competitive Advantage: A Case on Bangladesh Banking Industry. *Management Research*, *10*(1), 1–7.

Angelovska, N., Josimovski, S., & Pulevska Ivanovska, L. (2022). How effective complaint management affects customer retention: The case of group-buying site grouper. mk. *Management: Journal of Contemporary Management Issues*, *27*(1), 151–166.

Bahri, S., & Zamzam, F. (2015). *Model penelitian kuantitatif berbasis SEM-Amos* (1st ed.). Deepublish.

Bergeron, B. (2002). *Essentials of CRM: A Guide to Customer Relationship Management* (2nd ed.). John Wiley & Sons, Inc.

Bhat, S. A., & Darzi, M. A. (2016). Customer relationship management: An approach to competitive advantage in the banking sector by exploring the mediational role of loyalty. *International Journal of Bank Marketing, 34*(3), 1-34. https://doi.org/10.1108/IJBM-11-2014-0160

Brough, A. R., & Martin, K. D. (2020). Consumer privacy during (and after) the COVID-19 pandemic. *Journal of Public Policy & Marketing, 31*, 11-15.

Butt, M. S. (2021). The Impact of Customer Relationship Management Technology Use on the Firm Performance Mediating and Moderating Role of Marketing Capabilities. *International Journal of Innovation, Creativity and Change. Www.Ijicc.Net*, *15*(4), 2021.

Chen, I. J., & Popovich, K. (2003). Understanding customer relationship management (CRM): People, process and technology. *Business Process Management Journal*, *9*(5), 672–688. https://doi.org/10.1108/14637150310496758

Chen, S. (Joseph), Tran, K. T., Xia, Z. (Raymond), Waseem, D., Zhang, J. A., & Potdar, B. (2023). The double-edged effects of data privacy practices on customer responses. *International Journal of Information Management*, *69*, 102600. https://doi.org/10.1016/j.ijinfomgt.2022.102600

Chikako, T. U., & Hamu, G. T. (2021). Assessment of Customers' Relationship Management Practices on Customer Retention and Loyalty of Oromia Credit and Saving Share Company: Bule Hora City Branch. *Advances in Operations Research*. https://doi.org/10.1155/2021/5545836

Dalla Pozza, I., Goetz, O., & Sahut, J. M. (2018). Implementation effects in the relationship between CRM and its performance. *Journal of Business Research, 389,* 391-403. https://doi.org/10.1016/j.jbusres.2018.02.004

Dean, D., Croft, R., & Pich, C. (2015). Toward a Conceptual Framework of Emotional Relationship Marketing: An Examination of Two UK Political Parties. *Journal of Political Marketing*, *14*(1–2), 19–34. https://doi.org/10.1080/15377857.2014.990849

Dehghanpouri, H., Soltani, Z., & Rostamzadeh, R. (2020a). The impact of trust, privacy and quality of service on the success of E-CRM: the mediating role of customer satisfaction. *Journal of Business and Industrial Marketing*, *35*(11), 1831–1847. https://doi.org/10.1108/JBIM-07-2019-0325

Deshpandé, R., Farley, J. U., & Webster, F. E. (2012). Corporate Culture, Customer Orientation, and Innovativeness in Japanese Firms: A Quadrad Analysis. *Developing a Market Orientation*, *57*(1), 79–102. https://doi.org/10.4135/9781452231426.n4

Elkhansa, M., & Hamid, A. B. A. (2020a). Implementing Customer RelationshipManagement in AL Rajihiislamic Bank:Reality & Perspectives. *Global Journal of Management and Business Research: E Marketing*, *20*(2).

Eltahir, A. M., Ahmed, T. M., Ahmed, H., & Abdalfadil, T. A. (2021a). Comparative study of customer relationship management (CRM) and electronic customer relationship management (E-CRM). *International Journal of Advanced and Applied Sciences, 8*(7), 1-6. https://doi.org/10.21833/ijaas.2021.07.001

Etim Udoh, B., Emmanuel Samuel, U., & Ishaku Prince, A. (2019). Customer relationship management model: A business strategy in a competitive business climate. *International Journal of Supply Chain Management*.

Femina, B. T., & Sudheep, E. M. (2015). An efficient CRM-data mining framework for the prediction of customer behaviour. *Procedia Computer Science*. https://doi.org/10.1016/j.procs.2015.02.136

Ferrer-Estévez, M., & Chalmeta, R. (2023). Sustainable customer relationship management. *Marketing Intelligence & Planning*, *41*(2), 244–262.

Frow, P. E., & Payne, A. F. (2009). Customer Relationship Management: A Strategic Perspective. *Journal of Business Market Management*, *3*(1), 7–27. https://doi.org/10.1007/s12087-008-0035-8

Galitsky, B., & De La Rosa, J. L. (2011). Concept-based learning of human behavior for customer relationship management. *Information Sciences*, *181*(10). https://doi.org/10.1016/j.ins.2010.08.027

Gonroos, C. (1996). Relationship Marketing: Stratigic and Tactical Implications. *Management Decision*, *34*(3), 5–14.

Gopalsamy, S., & Gokulapadmanaban, S. (2021a). Doesimplementation of customerrelationship management (crm) enhance the customer loyalty?an empirical researchin banking sector. *Iranian Journal of Management Studies*, *14*(2), 401–417. https://doi.org/10.22059/IJMS.2020.302683.674075

Grönroos, C. (1991). The Marketing Strategy Continuum: Towards a Marketing Concept for the 1990s. *Management Decision*, *29*(1), 7–13. https://doi.org/10.1108/00251749110139106

Guerola-Navarro, V., Oltra-Badenes, R., Gil-Gomez, H., & Iturricha Fernández, A. (2021). Customer relationship management (CRM) and Innovation: A qualitative comparative analysis (QCA) in the search for improvements on the firm performance in winery sector. *Technological Forecasting and Social Change*. https://doi.org/10.1016/j.techfore.2021.120838

Hafeez, S., & Abbas, T. (2017). Impact of CRM practices on service quality in the banking industry Impact of CRM practices on service quality in the banking industry Sana Hafeez. *Pakistan Administrative Review*, *1*(2), 130–144.

Hair, J. (2010). *Multivariate Data Analysis*. Pearson Education, Inc.

Haislip, J. Z., & Richardson, V. J. (2017). The effect of Customer Relationship Management systems on firm performance. *International Journal of Accounting Information Systems*. https://doi.org/10.1016/j.accinf.2017.09.003

Harryani, S. (2017). Customer Relationship Management Influence on Customer Value, Product Quality and Service Quality in Improving Customer Satisfaction and Its Implication on the Customer Loyalty. *Jurnal Ilmiah Ekonomi Bisnis*, *22*(2), 178575.

Hassan, R. S., Nawaz, A., Lashari, M. N., & Zafar, F. (2015). Effect of Customer Relationship Management on Customer Satisfaction. *Procedia Economics and Finance*, *23*(October 2014), 563–567. https://doi.org/10.1016/s2212-5671(15)00513-4

Hassan, S. H., Mohamed Haniba, N. M., & Ahmad, N. H. (2019). Social customer relationship management (s-CRM) among small- and medium-sized enterprises (SMEs) in Malaysia. *International Journal of Ethics and Systems*. https://doi.org/10.1108/IJOES-11-2017-0192

Hia, E. E., Fahram, M. K., & Nurhasanah, S. (2022). Penerapan Customer Relationship Management (CRM) Berbasis Website Terhadap Penilaian Pelanggan. *Journal CERITA*, *8*(1), 60–66. https://doi.org/10.33050/cerita.v8i1.2136

Ibrahim, A., & Kamri, N. A. (2016). The Commitment to Islamic Work Ethics among Islamic Banking's Employees in Aceh *Shariah Journal*, *24*(1).

Ibrahim, A. (2015). *The Influence of Islamic Work Ethics on Organizational Performance at the Islamic Banking Institutions in Aceh* (Ph.D. Thesis). University of Malaya, Kuala Lumpur.

iconesia.co.id. (2014). *Dampak Kepuasan Pelanggan dalam InfoGraphics*.

Irawan, A. (2019). Analisis Customer Relationship Management (CRM) terhadap Customer Relationship Quality (CRQ) dan Customer Lifetime Value (CLV) Rumah Zakat di Indonesia. *At-Taradhi: Jurnal Studi Ekonomi*, *10*(1), 99. https://doi.org/10.18592/at-taradhi.v10i1.2802

Jain, V., Mogaji, E., Sharma, H., & Babbili, A. S. (2022a). A multi-stakeholder perspective of relationship marketing in higher education institutions. *Journal of Marketing for Higher Education*, *0*(0), 1–19. https://doi.org/10.1080/08841241.2022.2034201

Kalia, P., Kaushal, R., Singla, M., & Parkash, J. (2021). Determining the role of service quality, trust and commitment to customer loyalty for telecom service users: a PLS-SEM approach. *TQM Journal*, *33*(7), 377–396. https://doi.org/10.1108/TQM-04-2021-0108

Kamrul Islam Shaon, S. M., & Rahman, H. (2015). A Theoretical Review of CRM Effects on Customer Satisfaction and Loyalty. *Central European Business Review*, *4*(1), 23–36. https://doi.org/10.18267/j.cebr.108

Kamri, N. A., Ramlan, S. F., & Ibrahim, A. (2014). Qur'anic Work Ethics. *Journal of Usuluddin, 40*(-), 135-172.

Kaur, J. (2020). Customers' perception of current CRM practices at SBI: A case study of State Bank of India, Patna District, Bihar. *Journal of Management Research and Analysis*. https://doi.org/10.18231/2394-2770.2018.0046

Kementerian Komunikasi dan Informasi RI. (2021, November 17). *Pentingnya Pelindungan Data Pribadi di Era Digital*. Direktorat Jendral Aplikasi Informatika.

Khan, R. U., Salamzadeh, Y., Iqbal, Q., & Yang, S. (2022). The Impact of Customer Relationship Management and Company Reputation on Customer Loyalty: The Mediating Role of Customer Satisfaction. *Journal of Relationship Marketing*. https://doi.org/10.1080/15332667.2020.1840904

Kotler, P. (2012). Marketing management/Philip Kotler, Kevin Lane Keller. *Pearson Education International*.

Kumar, V., & Reinartz, W. (2018). Customer Privacy Concerns and Privacy Protective Responses. In *Business and Economics* (pp. 285–309). Springer. https://doi.org/10.1007/978-3-662-55381-7_14

Laub, J. A. (1999). Assessing the servant organization; Development of the Organizational Leadership Assessment (OLA) model. Dissertation Abstracts International. *Procedia - Social and Behavioral Sciences*.

Li, F., & Xu, G. (2022). AI-driven customer relationship management for sustainable enterprise performance. *Sustainable Energy Technologies and Assessments*, *52*, 102103.

Long, C. S., Khalafinezhad, R., Ismail, W. K. W., & Rasid, S. Z. A. (2013). Impact of CRM factors on customer satisfaction and loyalty. *Asian Social Science*. https://doi.org/10.5539/ass.v9n10p247

Lubis, A., Dalimunthe, R., Absah, Y., & Fawzeea, B. K. (2020). The Influence of Customer Relationship Management (CRM) Indicators on Customer Loyalty of Sharia Based Banking System. *GATR Journal of Management and Marketing Review*, *5*(1), 84–92. https://doi.org/10.35609/jmmr.2020.5.1(8)

Makudza, F. (2021). Augmenting customer loyalty through customer experience management in the banking industry. *Journal of Asian Business and Economic Studies*, *28*(3), 191–203. https://doi.org/10.1108/jabes-01-2020-0007

Martin, K. D., Borah, A., & Palmatier, R. W. (2017). Data Privacy: Effects on Customer and Firm Performance. *Journal of Marketing*, *81*(1), 36–58. https://doi.org/10.1509/jm.15.0497

Mintzberg, H. (1994). *The Rise and Fall of Strategic Planning*. Prentice Hall.

Miremadi, A., & Ghanadiof, O. (2021). CRM Competitive Strategy in Financial Institutions. *European Journal of Business and Management Research*. https://doi.org/10.24018/ejbmr.2021.6.3.867

Morgan, R. M., & Hunt, S. D. (1994). The Commitment-Trust Theory of. *Journal of Marketing*, *58*(July), 20–38.

Munandar, J. M., Oktaviani, D., & Angraini, Y. (2022a). How important is CRM toward customer's loyalty to conventional and Islamic bank marketing strategy? : A case study from Indonesia. *Journal of Islamic Marketing*. https://doi.org/10.1108/JIMA-07-2019-0146

Nasir, S. (2015). *The Conceptual Framework of Relationship Marketing*. *January*, 38–63. https://doi.org/10.4018/978-1-4666-8231-3.ch003

Noviana, G. (2021). An Analysis of the Implementation of Electronic Customer Relationship Management (E-CRM) Towards Customer Loyalty. *Proceedings of the 5th Global Conference on Business, Management and Entrepreneurship (GCBME 2020)*. https://doi.org/10.2991/aebmr.k.210831.086

Nuralam, I. P. (2016). Creating Customer Relationship Management Based on Islamic Values: a Case Study of Pt. Bank Muamalat Indonesia Tbk. *Russian Journal of Agricultural and Socio-Economic Sciences*, *58*(10), 60–70. https://doi.org/10.18551/rjoas.2016-10.08

Nurhaliza, S. (2021, August 5). Hati-hati, Ini Dampak Kerugian Data Nasabah Bocor. *IDXchanel.Com*. https://www.idxchannel.com/banking/hati-hati-ini-dampak-kerugian-data-nasabah-bocor

Palazzo, M., Foroudi, P., & Ferri, M. A. (2021). Examining antecedents and consequences of perceived service quality in the hotel industry: a comparison between London and New York. *TQM Journal*. https://doi.org/10.1108/TQM-09-2020-0203

Parahiyanti, C. R., Prabowo, S. H. W., Dewi, Y. R., Abd Aziz, N., & Yunitasari, E. (2023). Creating Satisfaction, Loyalty, and Competitive Advantage for Banking Industry: The Roles of Customer Relationship Management (CRM) in the Digital Era. *BISTIC Business Innovation Sustainability and Technology International Conference (BISTIC 2022)*, 380–392.

Parvatiyar, A., & Sheth, J. N. (2001). *Conceptual Framework of Customer Relationship Management*. McGraw-Hill.

Peelen, E., & Beltman, R. (n.d.). *Customer relationship management Second Edition*. www.pearson-books.com

Puspasari, E. Y. (2020). Existence Institutional Economics Coastal Communities, Local Wisdom in E New Paradigm. *KnE Social Sciences*, *4*(7), 384–396. https://doi.org/10.18502/kss.v4i7.6868

Rafiki, A., Hidayat, S. E., & Al Abdul Razzaq, D. (2019). CRM and organizational performance: A survey on telecommunication companies in Kuwait. *International Journal of Organizational Analysis*, *27*(1), 187-205. https://doi.org/10.1108/IJOA-11-2017-1276

Rambat, L., & Hamdani, A. (2006). *Manajemen Pemasaran Jasa* (2nd ed.). Salemba Empat.

Ruivo, P., Oliveira, T., & Santos, V. (2015). Measuring Customer Data Protection in Nearshores. *Procedia Computer Science*, *64*, 610–617. https://doi.org/10.1016/j.procs.2015.08.574

Saqib, M., & Zarine, R. (2021). Evaluating Customer Relationship Management (CRM) as a Business Knowledge and Intelligence Management Tool. *IRASD Journal of Management*. https://doi.org/10.52131/jom.2021.0302.0036

Saxena, N., & Taneja, M. (2018). A study on CRM effectiveness in public and private sector banks. *International Journal of Public Sector Performance Management*. https://doi.org/10.1504/IJPSPM.2018.10009503

Shukla, M. K., & Pattnaik, P. N. (2019). Managing Customer Relations in a Modern Business Environment: Towards an Ecosystem-Based Sustainable CRM Model. *Journal of Relationship Marketing*. https://doi.org/10.1080/15332667.2018.1534057

Siddiqi, T., Khan, K., & Sharna, S. (2018). Impact Of Customer Relationship Management on Customer Loyalty: Evidence From Bangladesh's Banking Industry. *International Journal of Business, Economics and Law*, *11*, 65–70. https://doi.org/10.18576/jsap/11S105

Sofi, M. R., Bashir, I., Parry, M. A., & Dar, A. (2020). The effect of customer relationship management (CRM) dimensions on hotel customer's satisfaction in Kashmir. *International Journal of Tourism Cities*, *6*(3), 601–620. https://doi.org/10.1108/IJTC-06-2019-0075

Soltani, Z., Zareie, B., Milani, F. S., & Navimipour, N. J. (2018). The impact of the customer relationship management on the organization performance. *Journal of High Technology Management Research*. https://doi.org/10.1016/j.hitech.2018.10.001

Srivastava, C., Kashmiri, S., & Mahajan, V. (2023). Customer Orientation and Financial Performance: Women in Top Management Teams Matter! *Journal of Marketing*, *87*(2), 190–209.

Steinhoff, L., & Palmatier, R. W. (2021). Commentary: Opportunities and challenges of technology in relationship marketing. *Australasian Marketing Journal*, *29*(2), 111–117. https://doi.org/10.1016/j.ausmj.2020.07.003

Stone, M., Woodcock, N., & Wilson, M. (1996). Managing the change from marketing planning to customer relationship management. *Long Range Planning*, *29*(5), 675–683. https://doi.org/10.1016/0024-6301(96)00061-1

T. Tony Ke, & K. Sudhir. (2020). Privacy Rights and Data Security: GDPR and Personal Data Markets. *SSRN ELibrary*, 1–68.

Tempo Onlie. (2019, February 23). *Urgensi Regulasi Pelindungan Data Pribadi di Indonesia*. Tempo.

Terho, H., Mero, J., Siutla, L., & Jaakkola, E. (2022). Digital content marketing in business markets: Activities, consequences, and contingencies along the customer journey. *Industrial Marketing Management*, *105*, 294–310.

TopBusiness. (2019, August 20). *Konsumen Loyal Hanya 8% Secara Global*. TopBusiness.

Trias Palupi Kurnianingrum. (2020). Urgensi Pelindungan Data Pribadi Konsumen di Era Ekonomi Digital. *Jurnal Kajian*, *25*(3), 197–216.

Trif, S. M., Dutu, C., & Tuleu, D. L. (2019). Linking CRM capabilities to business performance: A comparison within markets and between products. *Management and Marketing*. https://doi.org/10.2478/mmcks-2019-0021

Wijanto, S. H. (2008). *Structural Equation Modeling dengan Lisrel 8.8: Konsep dan Tutorial*. Graha Ilmu.

Zulkifli, Z., & Tahir, I. M. (2011). A conceptual framework for Customer Relationship Management (CRM) practices among banks from the customers perspective. *Elixir International Journal*, *34*, 2447–2450.