

## Integration of Character Economy Education Through Digital Market Simulation in Social Studies Class of Muhammadiyah Mataram Senior High School



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### ABSTRACT

This study aims to analyze the integration of character-based economic education through the application of digital market simulation in Social Sciences (IPS) learning at SMA Muhammadiyah Mataram. The background of this research is based on the need to form a young generation that is not only capable in the cognitive aspect of economics, but also has character values such as honesty, responsibility, cooperation, and ethics in transacting in the digital era. This research approach uses a qualitative method with a case study design, which involves observation, in-depth interviews, and documentation of the learning process utilizing technology-based digital market simulations. The results of the study show that the integration of character values into the digital market simulation has a positive impact on improving students' economic literacy, critical thinking skills, and the formation of ethical entrepreneurial character. Project-based learning activities and online market simulations allow students to understand economic dynamics contextually, while instilling moral values in digital economy practices. This research emphasizes the importance of pedagogical innovation in social studies education that combines cognitive, affective, and psychomotor dimensions through a character-based digital approach. Thus, character economy education through digital market simulation becomes a learning model that is relevant to the demands of the 21st century and in line with the vision of strengthening the profile of Pancasila students in the Muhammadiyah school environment.

### Article History

Received 2025-09-21

Revised 2025-10-19

Accepted 2025-11-27

### Keywords

Character education,  
Digital market  
simulation, Social  
studies learning,  
Economic literacy,  
Learning innovation

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## Introduction

Educational transformation in the digital era requires pedagogical innovation that not only focuses on mastering knowledge, but also on the formation of students' character. In the context of economic education, there is an urgent need to integrate moral, ethical, and social responsibility values into the learning process so that students are able to behave economically wisely and with integrity (Sukardi, 2022). The phenomenon of digital disruption has changed the way humans transact, think, and interact economically, so the world of education needs to prepare students who are not only technologically literate, but also have a strong value orientation and character (Rahmawati & Yusuf, 2021).

Economics education taught in high school has a strategic role in shaping a rational, critical, and moral economic mindset. However, reality shows that economic learning often still focuses on the cognitive aspect alone, without providing enough space for the formation of character values (Fitriani, 2020). Therefore, there is a need for a learning model that is able to integrate cognitive and affective aspects in a balanced manner, so that students not only understand economic theory, but also be able to apply it with moral responsibility in the real world.

The integration of character education in economic learning is an effort to provide

holistic and contextual education. Character education serves as a foundation for fostering ethical awareness in economic activities, such as honesty, discipline, hard work, and social care (Lickona, 2021). These values are important in the midst of the development of digital economy practices that often pose new challenges, such as consumptive behavior, online fraud, and weak business ethics among the younger generation (Hidayat, 2022).

In this context, digital market simulation emerged as an innovative learning approach that is able to combine aspects of economic knowledge with the formation of students' characters. Market simulations allow students to experience firsthand economic processes, such as production, distribution, and consumption, through a learning environment that resembles the reality of the digital market (Arifianto, 2023). Through the simulation, students not only understand economic theory, but also learn how to apply the values of honesty, responsibility, and cooperation in digital transaction activities.

Digital simulation-based learning is also in line with the *experiential learning paradigm* which emphasizes the importance of hands-on experience in shaping students' understanding and attitudes (Kolb, 2020). By involving students in digital market simulations, the learning process becomes more interactive, contextual, and meaningful. Students are invited to play the role of economic actors who make decisions based on ethics and moral values, not just following the logic of economic profit alone (Sugiyono, 2021).

SMA Muhammadiyah Mataram as a modern Islamic educational institution has a strong commitment to developing education based on values and character. As part of the Muhammadiyah school network, the educational orientation in this school not only emphasizes academic, but also spiritual and moral aspects, which are sourced from Islamic and national values (Muhammadiyah Higher Education Council, 2022). In this context, the application of digital market simulation is a strategic vehicle to instill Islamic economic character values, such as justice, honesty, and trust.

The integration of character economy education through digital market simulations at SMA Muhammadiyah Mataram is also in line with the direction of national education policies, especially the strengthening of the *Pancasila Student Profile* which emphasizes six main dimensions: faith and piety, global diversity, mutual cooperation, independence, critical reasoning, and creativity (Ministry of Education and Culture, 2023). Through simulation-based learning, students are given the opportunity to internalize these values in the context of real economic activities.

The digital era has brought significant changes to the economic behavior of the younger generation. The emergence of *marketplaces*, *cryptocurrencies*, and *digital banking* requires Generation Z to have high economic and digital literacy. However, without a strong character foundation, technological advances can lead to value deviations, such as excessive consumptive behavior and low social responsibility (Nugraha & Yuliani, 2021). Therefore, education must be able to be a means of forming a digitally civilized economic character.

Digital market simulation is not only a learning medium, but also a strategy for forming a collaborative learning ecosystem. In this activity, students learn to manage resources, understand demand and supply, and negotiate with peers ethically (Pradana, 2023). This process fosters awareness that economic activities are inseparable from moral values and social responsibility. Thus, digital market simulations can be a character laboratory for students.

In addition, the use of digital market simulations also supports the development of 21st century competencies which include *critical thinking*, *communication*, *collaboration*, and *creativity* (Trilling & Fadel, 2020). Through project-based activities and economic problem-solving, students are encouraged to think critically about market phenomena, communicate effectively, and work together in teams. Character values such as discipline, honesty, and responsibility grow naturally in digital learning interactions.

Character-based economic education through digital simulations also provides space for teachers to play the role of inspirational facilitators. Teachers are no longer the only source of information, but rather supervisors who help students reflect on the moral values behind every

economic decision taken (Wibowo, 2022). Thus, the role of teachers shifts from *transmitter of knowledge* to *mentor of values*, which is relevant to the modern educational paradigm.

Especially at SMA Muhammadiyah Mataram, the implementation of digital market simulations received strong support from the school's vision to create graduates with noble character and global competitiveness. The integration of information technology in social studies learning is part of the digital transformation efforts of Muhammadiyah educational institutions in the West Nusa Tenggara (NTB) area, which is now intensively developing an adaptive and characterful curriculum (Zulmiyadi et al., 2023). Therefore, this research has high contextual relevance.

From a methodological perspective, the application of digital market simulation also provides an opportunity to examine in depth the dynamics of character formation in the context of economic learning. The learning process is not only measured through academic results, but also through changes in students' attitudes and economic behaviors which are reflected in their integrity, empathy, and social responsibility (Herlina, 2021). This opens up new perspectives in social studies education research that is more holistic and has applicative value.

Theoretically, this research strengthens the concept of *character-based digital pedagogy*, which is a learning approach that utilizes digital technology to instill moral and social values. This approach emphasizes that technology is not a goal, but a means to strengthen humanity through education (Holmes, 2022). Thus, digital simulation-based economic learning is not just a technological innovation, but also a form of value education in the modern era.

Based on this background, this research is focused on analyzing how the integration of character economy education can be implemented through digital market simulations in the social studies class of SMA Muhammadiyah Mataram. The main goal is to identify learning strategies, character values instilled, and the impact of learning on improving students' economic and moral literacy. This research is expected to make a theoretical and practical contribution to the development of contextual, characteristic, and digital-oriented economic learning models, in line with the ideals of national education based on Pancasila and progressive Islamic values.

## Research Methods

This study uses a qualitative approach with a case study design, which was chosen because it is able to provide an in-depth understanding of the phenomenon of character-based learning in a particular educational environment. This approach allows researchers to contextually explore how the integration of character economy education is implemented through digital market simulations in the social studies class of SMA Muhammadiyah Mataram. In line with the views of Creswell (2021), a qualitative approach is used to trace the meaning, values, and experiences experienced by learners and educators in real-life situations. This approach is also relevant for exploring affective dimensions and moral values that cannot be explained through quantitative data alone. Therefore, the focus of this research is not only on learning outcomes, but also on the process of character formation and the dynamics of social interaction that occur in digital market simulation activities.

The research subjects consisted of social studies teachers, grade XI students of SMA Muhammadiyah Mataram, and school principals as key informants. The selection of informants was carried out using purposive sampling techniques, which are based on certain considerations relevant to the research objectives (Sugiyono, 2022). Social studies teachers were chosen because they play a direct role in designing and implementing digital market simulations; students are selected as participants who experience the learning process; while the principal plays a role in providing institutional and policy views related to strengthening character education in Muhammadiyah schools. Through this technique, researchers can obtain a variety of perspectives that enrich understanding of the process of integrating character values in digital-based economic learning.

Data was collected through three main techniques, namely participatory observation, in-

depth interviews, and documentation studies. Observations were made to record behaviors, interactions, and dynamics that occurred during digital market simulation activities that took place in social studies classes. Researchers play the role of observer-participants who also witness how students design products, set prices, conduct virtual transactions, and reflect on character values such as honesty, responsibility, and cooperation. In-depth interviews were conducted with teachers and students to understand their learning experiences, as well as the learning strategies used to instill character values. Meanwhile, the documentation study was carried out by examining learning tools, learning implementation plans (RPP), and digital simulation activity reports as complementary data sources. All three techniques are used triangulatively to increase the credibility of the data (Miles, Huberman, & Saldaña, 2020).

Data analysis is carried out through the stages of data reduction, data presentation, and conclusion drawing as stated by Miles and Huberman (2019). Data reduction is carried out by selecting, concentrating, and simplifying the data from observations and interviews that are relevant to the research theme. The presentation of data was carried out in the form of a descriptive narrative and a thematic matrix that maps the relationship between learning strategies, character values, and economic learning outcomes. Drawing conclusions is carried out inductively by interpreting the meaning of the patterns that emerge during the simulated learning process. The validity of the findings is strengthened through triangulation techniques of sources and methods, as well as member checking to ensure the compatibility between the researcher's interpretation and the informant's experience. Thus, this research not only produces factual descriptions, but also in-depth reflections on the practice of character-based economic education in the digital era.

## Results and Discussion

The results of the study show that the application of digital market simulation in social studies learning at SMA Muhammadiyah Mataram is able to create a contextual, interactive, and value-based learning experience. Teachers use a simple digital platform based on a *marketplace simulation* to teach basic economic principles such as demand, supply, and price balance. However, the main essence is not only theoretical understanding, but how students internalize character values during the digital transaction process. In this case, learning does not stop at the cognitive dimension, but develops into the affective and moral realms.

The simulation process was carried out by dividing students into groups of producers and consumers, who interacted through the school's digital media. This activity shows the active involvement of all students, both in planning, product manufacturing, and price negotiation. The observation findings show that digital buying and selling activities foster a sense of responsibility and honesty of students in managing transactions. Students understand that economic success is determined not only by the shrewdness of trading, but also by the moral values that underlie it. These findings reinforce the view of Lickona (2021) that character education is a moral foundation that directs economic behavior towards social sustainability.

Teachers play an important role as value facilitators in these simulations. He not only explained the concept of economics, but also emphasized the importance of transaction ethics, price fairness, and empathy for customers. In each reflection session, the teacher invites students to discuss moral dilemmas that arise during the simulation, such as honesty in recording transactions and social awareness in determining prices. This approach is in line with the concept of *character-based digital pedagogy* which places moral values at the core of the digital learning process (Holmes, 2022). Teachers play the role of directors of ethical awareness, not just content presenters.

In-depth interviews revealed that most students felt that digital simulation activities were more meaningful than conventional learning. They believe that the process provides a real understanding of how the economy works, while challenging them to think critically and responsibly. One of the students stated that "here we learn to be honest and respect our friends, not just to make a profit." This phrase reflects the successful integration of character values

into the economic learning process. These findings are consistent with the results of Pradana (2023) research which confirms that digital-based economic simulations are effective in instilling the value of cooperation, responsibility, and creativity.

From the results of observation, it was also found that digital simulation activities foster healthy social dynamics among students. They learn to negotiate, compete sportively, and build trust in virtual economic relationships. This kind of collaborative activity hones social-emotional skills that are an integral part of character education (Ningsih & Arifianto, 2022). Thus, digital market simulations not only function as a medium for economic learning, but also as a means of social learning that fosters empathy, solidarity, and social responsibility attitudes.

In addition, the application of digital market simulations has been proven to strengthen students' digital economy literacy. They are able to understand the mechanism of online transactions, analyze consumer behavior, and evaluate digital market dynamics that are similar to real economic conditions. This strengthens Trilling & Fadel's (2020) argument that 21st century learning must train students to have economic and digital literacy at the same time. In the context of Muhammadiyah Mataram High School, this activity is a strategic step to prepare students to face a technology-based economic ecosystem with Islamic character and Pancasila ethics.

Pedagogically, digital market simulation-based learning shows conformity with the *experiential learning principle* from Kolb (2020), where the learning process begins from direct experience, followed by reflection, conceptualization, and application. Students experience a complete learning cycle—they act as market participants, reflecting on their economic decisions, and then relate them to economic theory and character values. This cycle makes learning more meaningful because it connects abstract concepts with concrete practice and moral values.

The results of the teacher's reflection showed that the strongest character values emerged during the simulation were honesty, responsibility, cooperation, and discipline. These values are a tangible manifestation of economic character education as stated by Wibowo (2022), who emphasizes that economic ethics cannot be separated from the dimension of human character. Through digital simulations, teachers succeed in instilling awareness that every economic decision has moral implications. Thus, this learning activity becomes an arena for the formation of ethical entrepreneurial character.

However, the results of the study also found some challenges. Some students still have difficulties in understanding digital ethics, such as plagiarism of product ideas and manipulation of transaction data. This shows that moral digital literacy is not fully mature among students. The teacher then intervened by giving a special session on *digital ethics* and *responsible entrepreneurship*. This strategy is effective in fostering new awareness that the use of technology must be in line with the values of honesty and social responsibility (Rahmawati & Yusuf, 2021).

From an institutional perspective, the success of this program is inseparable from the support of Muhammadiyah school policies that emphasize the synergy between Islamic value education and mastery of modern technology. The principal emphasized that the digital market simulation is part of an effort to form "students with superior character and digital power." This policy is in line with the vision of *Progressive Muhammadiyah Education* which places technology as an instrument of da'wah Islamic values in modern life (Muhammadiyah Higher Education Council, 2023). Thus, this innovation has both ideological and pedagogical relevance.

When viewed from the theory of character education, the success of this integration reflects the principle of *values infusion*, namely the instillation of value through concrete and reflective learning activities (Lickona, 2021). Character values are not taught verbally, but are brought to life through meaningful learning experiences. In a digital market simulation, students encounter real moral dilemmas, such as determining fair prices or managing conflicts

of interest. Through collective reflection, students learn to make ethical decisions based on moral values. This process reinforces character education as a practice, not just a concept.

The results of this study also show that digital market simulations improve students' critical and creative thinking skills. They must analyze the market, predict consumer behavior, and create innovative digital marketing strategies. This activity requires higher *order thinking skills*, which are the core of 21st century competencies (Dewi & Sutarto, 2022). Thus, this learning model not only shapes moral character, but also intellectual intelligence that is adaptive to global changes.

In addition to increasing economic literacy, this learning also strengthens students' social and spiritual character. In the post-simulation reflection session, students were asked to relate their economic experience to Islamic values such as justice, trust, and *ukhuwah*. The integration of Islamic values into the context of the digital economy makes learning more meaningful for Muhammadiyah school students. This affirms that character economics education can be a means of internalizing religious values in modern economic practice (Zulmiyadi et al., 2023).

Further discussion shows that the digital market simulation model can also be a strategy for economic citizenship education, as it instills ethical awareness and social responsibility in economic activities. Students understand that economic activities have public and moral dimensions that affect common welfare. Thus, learning economics with character also supports the realization of *good citizenship* in the digital era (Herlina, 2021). This expands the meaning of social studies education from just an academic instrument to a means of national character development.

Overall, the results of the study confirm that the integration of character economy education through digital market simulation is effective in developing three domains of learning: cognitive, affective, and psychomotor. Students not only understand economic concepts, but also live moral values and apply them in real action. This model provides a new paradigm in social studies learning in secondary schools, that digitalization is not a threat, but an opportunity to strengthen the nation's character through education, adaptive, ethical, and transformational power. Thus, the simulation of the digital market can be recommended as a character economy learning model that is relevant for 21st century education, as well as in line with the vision of the *Pancasila Student Profile* and progressive Islamic values that are the hallmarks of Muhammadiyah education.

## Conclusion

This study emphasizes that the integration of character economy education through digital market simulation in the social studies class of SMA Muhammadiyah Mataram has created a new paradigm in humanistic and contextual economic learning practices. This model proves that digital technology can be an effective instrument in instilling moral, ethical, and social responsibility values in the midst of the complexity of modern economic activities. Simulation-based learning not only develops students' economic and digital literacy, but also strengthens basic characters such as honesty, responsibility, discipline, and cooperation. Thus, this approach is able to unite cognitive, affective, and psychomotor dimensions in one meaningful and transformative learning ecosystem.

The results of the study show that students' active involvement in digital market simulations encourages the formation of ethical economic awareness. Students not only understand economic concepts theoretically, but also learn to make moral decisions in situations that resemble real market conditions. This process reinforces the idea that effective character education should be realized through concrete and reflective learning experiences. Digital market simulations provide space for learners to experience moral dilemmas, negotiate fairly, and build empathy in virtual economic relations. This shows that character values cannot be taught verbalistically, but must be brought to life through real experience rooted in social practice.

From an institutional perspective, the successful implementation of this program shows that Muhammadiyah schools are able to become pioneers of character- and technology-based pedagogical innovation. The vision of a school that combines progressive Islamic values with modern technology is a strong foundation for the creation of learning that is relevant to the demands of the 21st century. The digital market simulation model is not just an economic learning strategy, but also a representation of a *transformative pedagogy* that places spiritual and moral values at the core of education. The integration of Islamic values such as justice, trust, and *ukhuwah* in the context of the digital economy shows that modern education can be aligned with religious ethics without losing its global relevance.

Conceptually and practically, this research makes a significant contribution to the development of social studies learning models based on character and technology. Digital market simulations can be used as a reference for educators and policy makers to strengthen the character dimension in economic education in secondary school. Furthermore, the results of this study affirm the urgency of economic learning which is not only oriented to academic competence, but also to the formation of digital citizens with integrity and civility. Thus, character economy education through digital market simulations not only supports national learning outcomes and the *Pancasila Student Profile*, but also contributes to the birth of a young generation that is intellectually intelligent, morally resilient, and ready to face global economic challenges with a solid foundation of values.

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