The Value of Mutual Cooperation in the Context of the Digital Economy: A Social Study of Junior High School Students in Central Mamuju

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Abstract

This study aims to examine the transformation of mutual cooperation values in the context of the digital economy among junior high school students in Central Mamuju Regency. Social changes marked by advances in information technology have encouraged the emergence of new forms of social interaction and collaboration among adolescents. Using a qualitative approach and social study methods, this study explores how the value of mutual cooperation, which was originally rooted in traditional practices such as community service and physical activities, has shifted towards digital collaboration in the form of online activities, such as virtual group work, information sharing, and mutual moral support on social media. The results of the study show that junior high school students in Central Mamuju have adapted the value of mutual cooperation to the digital context by emphasizing virtual solidarity, project-based collaboration, and participation in online social activities. Schools play an important role through the implementation of Project-Based Learning, which fosters digital cooperation and collective responsibility. Meanwhile, families and the local culture of Central Mamuju contribute to preserving the essence of togetherness so that it is not eroded by the individualistic culture that has emerged as a result of the intensity of online interactions. This transformation demonstrates the ability of the local community, especially the younger generation, to adapt traditional social values to digital life creatively and contextually.

Keywords: Digital Economy, Digital Solidarity, Mutual Cooperation, Values Education.

INTRODUCTION

The development of digital technology and the digital economy has brought about significant social changes among adolescents, including junior high school students. This transformation has not only affected the way they communicate, but also the way they understand cooperation, solidarity, and social values such as mutual assistance. According to Dienlin and Przybylski (2020), intensive use of digital technology among adolescents affects their psychosocial well-being and the social relationships they build. Adolescents are now not only users of technology but also social actors in the digital space, which allows them to engage in internet-based economic activities, such as online buying and selling and creative economic content. This phenomenon shows that the digital economy has created new spaces for adolescents to participate in economic activities that were previously unimaginable, but at the same time presents challenges to traditional values of togetherness (Youth and Media, 2020).

In the context of social education, the emergence of new patterns of interaction among junior high school students is an important symptom of social structural changes resulting from digitalization. Interactions between students now occur not only in the classroom, but also through virtual spaces such as social media groups, instant messaging applications, and online collaboration platforms. A study conducted by Polack et al. (2021) shows that online interactions among adolescents can expand their social networks, but have the potential to reduce the intensity of face-to-face interactions, which play an important role in the formation of empathy and social solidarity. In the Indonesian context, Setiadi et al. (2023) found that the younger generation has a high ability to adapt to digital technology, but still needs social literacy in order to maintain the values of mutual cooperation in the midst of a digital culture that tends to be individualistic.

This phenomenon is also evident among junior high school students in the Mamuju Tengah region, who have begun to utilize digital technology for simple economic activities such as online sales, promoting local products, or online collaboration through social media. According to Susilatun (2023), economic digitalization in Indonesia has brought about changes in the social structure of communities, including in patterns of collaboration and social participation. Meanwhile, local research on the character of mutual cooperation among Indonesia's younger generation shows that the value of togetherness remains a social identity of the nation, even though its form has begun

to shift to digital collaboration or virtual solidarity (Preserving the Gotong Royong Character for Indonesian Gen-Z in the Digital Era, 2024). Thus, it can be concluded that the emergence of the digital economy has changed the dynamics of social and economic interactions among junior high school students and requires new strategies to maintain the value of mutual cooperation in the digital context.

Central Mamuju continues to maintain strong socio-cultural roots in the value of mutual cooperation: practices of togetherness, mutual assistance, and collective work are still evident in traditional activities, community rituals, and local development programs that place community participation as an important element (Central Mamuju District Government, 2022; 2024 RKPD Document). However, in recent years, villages and youth communities in this region have begun to feel the impact of digitalization through the spread of smartphones, access to social media, and participation in the digital economy, which has modified the way people interact and collaborate. Studies on digital mutual assistance show that online platforms and applications enable new forms of solidarity (e.g., online fundraising, community-based buying and selling groups, or coordination of assistance through chat groups), while also encouraging more fragmented and centralized patterns of interaction on certain digital networks (Faedlulloh, 2021; Sekarini, 2023).

In the context of the younger generation, research examining Gen-Z's perception of mutual cooperation values found that although the value of togetherness is still appreciated, its form often shifts to the virtual realm: mutual cooperation is manifested through content collaboration, the dissemination of social campaigns through social media, or online microeconomic cooperation, rather than solely through traditional physical mutual cooperation (Gen-Z, 2024). At the local policy and practice level, regional development planning documents (RPJMD/RKPD) in Central Mamuju have also begun to include programs that utilize technology for community empowerment and public services, which demonstrates official recognition of the need for local cultural adaptation to the digital era while affirming the sustainability of community values (Central Mamuju Regional Government, 2022; RKPD Kab. Mamuju, 2024). In other words, the current socio-cultural conditions in Central Mamuju are hybrid: the foundation of

traditional mutual cooperation remains strong, but the practices and their delivery are undergoing transformation under the influence of the digital economy and culture—a process that opens up opportunities for solidarity innovation but also poses challenges for the preservation of intergenerational values (Adaptation Fund/Kemitraan Indonesia, 2022; Faedlulloh, 2021).

Junior high school students' activities are increasingly touching on the economic sphere and digital interactions: in addition to being active consumers on online shopping platforms, many students are starting to manage simple online stalls, promote products through social media, or participate in community-based digital buying and selling networks (Widodo, 2024; Sanistasya, 2022). This shift is not merely a change in economic practices; it also affects students' daily social routines, including communication patterns and forms of cooperation. Quantitative and qualitative studies in Indonesia show that adolescents (aged 12–15 years) use social media as a space for learning, selling, and organizing; this use improves technical skills and economic networks, but also shifts some of the face-to-face interactions that have been the main vehicle for forming direct solidarity (Purboningsih et al., 2023; Widodo, 2024).

This change in practice has implications for how students think and act in relation to the values of mutual aid, cooperation, and solidarity. Research on online collaborative learning confirms that digital tools can encourage structured collaboration, such as task sharing through shared documents or group discussions, so that cooperation becomes more instrumental and task-oriented (Bach, 2024). On the other hand, studies on the influence of social media on school life report ambivalent effects: social media can facilitate the mobilization of assistance (fundraising, action coordination) but also reinforce the orientation towards self-image, social competition, and selectivity in providing assistance, a phenomenon that marks a shift from solidarity based on deep social bonds to more conditional or transactional solidarity (Nafisah, 2024; Purboningsih et al., 2023). Thus, the phenomenon observed in the field is the hybridization of social practices: students internalize traditional mutual aid practices into digital forms (e.g., sharing learning resources, online community fundraising), but the quality and meaning of such solidarity change depending on the context of the platform, digital

literacy, and the economic pressures accompanying participation in the digital economy (Widodo, 2024; Bach, 2024; Purboningsih et al., 2023).

Considering the above description, the research question in this study is: How do junior high school students understand the value of mutual cooperation in the digital economy era? This study attempts to reveal the extent to which students still interpret mutual cooperation as a social practice that reflects solidarity and togetherness in the context of online life. This understanding is important because, according to Nurhadi and Alfiansyah (2021), value transformation among adolescents often follows the flow of digital media, which influences the way they think, interact, and interpret social relationships. In this context, mutual cooperation is no longer only manifested in the form of collective physical work, but also through digital collaboration, such as sharing information, crowdfunding, and helping others through online platforms (Putra & Anggraini, 2023).

The shift in the value of mutual cooperation can be seen from the transformation of traditional physical and collective practices into new forms mediated by digital technology. The study Preserving the Gotong Royong Character for Indonesian Gen-Z in the Digital Era by Murtadlo, Albana, Helmy et al (2024) found that although Gen-Z in leading schools in several Indonesian cities still consider the value of mutual cooperation to be important, they also realize that the development of digital media can threaten the traditional manifestation of that value. The study found that Gen-Z has begun to use digital media to practice gotong royong, such as through online learning, online fundraising, and digital study club activities.

Furthermore, the case study "Digital Mutual Cooperation: A New Practice of Citizens Solidarity in The Pandemic Era" by Faedlulloh et al (2021) shows that during the Covid-19 pandemic, digital mutual cooperation (solidarity via digital platforms) emerged when physical conditions were limited. However, this study also notes that such practices are situational and sometimes only temporary, depending on the urgency of the crisis, so they do not always replace traditional forms of mutual cooperation in the long term.

Thus, it can be said that the value of mutual cooperation faces a duality: first, the opportunity to remain relevant through digital media; second, the challenge of a new orientation that tends to be individualistic, selective, and sometimes instrumental, which requires conscious efforts in education and community to maintain its collective aspects and deep solidarity.

METHODS
Research Approach

This study uses a qualitative approach with an ethnographic design. According to Creswell (2023), qualitative research provides space to explore social experiences in depth through the perspectives of participants. The digital ethnography model is also used to understand how junior high school students interpret and practice the value of mutual cooperation in the context of the digital economy, both at school and in virtual spaces. This is in line with Sugiyono's (2019) view that qualitative methods allow researchers to explore the meaning behind complex social phenomena.

Research Location

The research was conducted in several junior high schools in Central Mamuju Regency. The selection of locations was based on the existence of students' digital economic activities, such as selling online through social media platforms or marketplaces. In addition to schools as physical arenas, the research also expanded the arena to the digital space. This is in line with the findings of UNCTAD (2019) that the digital economy has influenced the social and economic practices of the younger generation, including students in developing countries.

Research Subjects and Informants

The research subjects were junior high school students who were active in digital economic activities, such as selling goods on social media or helping family businesses through online platforms. The informants consisted of students who practiced digital economics, teachers who guided entrepreneurship or social studies, parents who supported their children's economic activities, and school administrators involved in digital literacy programs.

Informants were selected using purposive sampling to capture a variety of experiences. According to Aryaningsih & Wardana (2024), understanding the value of mutual cooperation in the context of education needs to be viewed from the perspective of various actors involved, not only from the students' perspective. Data collection techniques included participant observation, in-depth interviews, focus group discussions, and documentation. Data

analysis was conducted through reduction, theme categorization, and triangulation as described in The SAGE Handbook of Qualitative Research (2023).

Data Collection Techniques

In the study entitled "The Value of Mutual Cooperation in the Context of the Digital Economy: A Social Study of Junior High School Students in Central Mamuju," data collection techniques were carried out using observation, in-depth interviews, and documentation. Observation was used to directly understand how students' mutual cooperation practices were integrated into digital economic activities, both through collaboration in technology-based assignments and simple digital entrepreneurship activities. As emphasized by Creswell & Poth (2020), observation in qualitative research is an important way to capture social dynamics in a naturalistic manner. In-depth interviews were conducted with students, teachers, and parents to explore their experiences related to the transformation of mutual cooperation values in digital activities.

Data Analysis Techniques

The data analysis techniques used in this study employ an interactive model that includes data reduction, data presentation, and conclusion drawing. Data collected from various sources is reduced according to the focus of the study, then presented in a narrative form that facilitates interpretation of how the value of mutual cooperation is reinterpreted in the context of the digital economy. Miles, Huberman, & Saldaña (2019) emphasize that interactive analysis allows researchers to build a deep understanding because the analysis process is carried out simultaneously with data collection. This model helps researchers explore the relationship between digital practices and the sustainability of mutual cooperation values among junior high school students in Central Mamuju.

Data Validity

Data validity was obtained through triangulation techniques, both source triangulation and method triangulation. Source triangulation is done by comparing information obtained from students, teachers, and parents, while method triangulation is done by matching the results of observations, interviews, and documentation. Lincoln & Guba (2020) state that validity in qualitative research can be strengthened through credibility, dependability, and confirmability, all of which can be achieved through triangulation. In addition, member checks were also used by asking informants to confirm the data that had been collected, so that the researchers' interpretations remained consistent with the social reality experienced by the research subjects (Moleong, 2021).

RESULTS AND DISCUSSION

Based on the introduction using the above research, the results of this study can be classified as follows:

Changes in the Meaning and Practice of Mutual Cooperation in the Digital Age

The results and discussion of this study show that the value of mutual cooperation among junior high school students in Central Mamuju has undergone a significant transformation due to the penetration of the digital economy and the use of internet-based communication technology. Traditionally, mutual cooperation was practiced through physical activities that involved direct togetherness, such as cleaning the school environment, helping friends in social activities, or participating in religious and traditional events. However, in the digital context, the practice of mutual cooperation has begun to shift towards a more flexible, technology-based form of online collaboration. Students now express the spirit of mutual cooperation through actions such as sharing learning information, helping friends understand material through online groups, or supporting each other in small digital entrepreneurial activities, such as promoting local products through social media.

Mutiani and Rahman's (2022) research shows that digitization has brought about changes in the form of youth social participation, where social solidarity is beginning to be demonstrated through digital networks that enable the creation of new forms of virtual social togetherness and collaboration. This finding reinforces Tapscott's (2020) view in his book Digital Economy: Rethinking Promise and Peril in the Age of Networked Intelligence, which explains that the digital economy not only changes the way humans transact but also changes the structure of social values, including solidarity and trust among fellow human beings. In the context of junior high school students, digital mutual cooperation is a form of adaptation to the demands of the times, which require efficiency, connectivity, and flexibility in social interaction.

However, these changes also pose challenges to the collective meaning of mutual cooperation, which

has always emphasized physical and emotional togetherness. According to Fitria (2023), digital culture carries the risk of reducing the intensity of direct interaction and social empathy because communication mostly occurs through technological intermediaries. In Central Mamuju, this phenomenon can be seen in the decline in student participation in traditional mutual assistance activities at school, while online interactions are on the rise. Even so, digital mutual assistance still reflects the spirit of solidarity and mutual aid, only in a new format that adapts to the social context of the digital community.

These findings indicate that mutual cooperation in the digital age has not disappeared, but has undergone recontextualization. It has become a new social practice that combines traditional values of togetherness with modern technology-based interaction patterns. As explained by Hargreaves and Fullan (2021), in the modern educational environment, social values such as collaboration and solidarity need to be redefined in order to remain relevant to the dynamics of the digital lives of the younger generation. Thus, digital mutual cooperation can be understood as an adaptive strategy in maintaining social cohesion amid changes in the structure of social interaction due to the digital economy.

The results of the study show that one of the most recognizable forms of mutual cooperation among junior high school students in Central Mamuju is moral support mediated by digital platforms. Empirically, this study found that students encourage each other in their learning activities through text messages and motivational posts, check in on friends who are facing assignments or exams, and spread solidarity campaigns (e.g., class fundraisers, calls for assistance for families affected by disasters) through stories, statuses, and class groups. These forms of support are fast, widespread, and often public (e.g., likes, comments, shares), thus simultaneously serving as a space for social affirmation for both senders and recipients. These field findings are in line with observations that social media plays a role in building and strengthening peer support and academic motivation through brief interactions that are both emotional and instrumental. (Hosen, 2021; Al Mosharrafa et al., 2024).

The discussion of these findings highlights three main points. First, moral support mediated by digital media is a form of recontextualization of mutual cooperation: the value of solidarity remains alive, but

its expression has changed from collective physical action to distributed affective and communicative action (e.g., encouraging messages, reposting campaigns). Studies in Indonesia show that Gen-Z can utilize digital platforms to maintain the value of togetherness in a new format, but the meaning of the experience of togetherness, which used to be intense and present in shared spaces, becomes different when it is realized through digital reach and speed (Murtadlo et al., 2024; Faedlulloh et al., 2021).

Second, moral support via social media has a positive effect on learning engagement and well-being: supportive peer-to-peer interactions can increase motivation, reduce anxiety when facing tasks, and facilitate academic collaboration (e.g., "study with me," sharing summaries), thereby functionally supporting educational goals. Quantitative research and experiments on student populations show a positive relationship between the use of social media for learning purposes and academic outcomes/engagement when these interactions are directed towards peer support and sharing learning resources. (Hosen, 2021; Al Mosharrafa et al., 2024; Hou, 2025).

Third, some ambivalent aspects and risks need to be considered. First, the support that emerges is often "performative" (e.g., publicizing support to build a social image), so that the quality of solidarity in terms of the depth of bonds and long-term responsibility may differ from traditional physical mutual assistance. Second, the practice of digital moral support is vulnerable to the digital divide: students with greater digital access and skills are more likely to be givers and receivers of support, while less connected students risk being marginalized from this solidarity network. Third, brief and rapid interactions have the potential to reduce the space for reflection and direct shared experiences that strengthen collective norms.

These findings are consistent with international studies that emphasize the benefits of peer support through digital media while warning of the potential for performative and exclusive side effects without character education guidance (APA, 2023; National Mentoring Resource Center, 2024; West et al., 2023). Based on the results and discussion above, the following practical recommendations are proposed: (1) schools should utilize structured digital moral support in collaborative learning programs (e.g., online group tasks that instill collective responsibility), (2) digital literacy and inclusion programs need to be

strengthened so that all students can participate in digital solidarity, and (3) a combination of physical activities (traditional mutual assistance) and digital activities must be maintained to maintain the depth of social bonds while utilizing the efficiency and reach of digital media.

The Influence of Technology on Students' Social Interaction Patterns

Field research conducted in several junior high schools in Central Mamuju shows that advances in digital technology have shifted most of the students' social interactions from physical spaces to virtual spaces. Daily communication activities such as task discussions, group coordination, class announcements, and casual interactions between friends often take place through messaging groups (e.g., WhatsApp/Telegram), story/status features, and learning platforms or shared documents. This shift increases the speed of coordination and facilitates the distribution of information, but quantitatively reduces the frequency of face-to-face meetings, which were previously an important arena for the formation of norms, trust, and emotional bonds between students (Purboningsih et al., 2023; Timotheou et al., 2022).

In addition to replacing some direct interactions, technology facilitates new forms of solidarity and cooperation. Students form online study groups, work on projects together through collaborative documents, and support each other through comments, reactions, or motivational posts that serve as peer support and strengthen academic engagement. Digital platforms also enable cross-class or cross-school collaboration and accelerate collective responses when needed (e.g., coordination of social activities or fundraising), so that digital media acts as an effective collaborative infrastructure when well organized (Kwiatkowska & W., 2022; Kruzan et al., 2022).

Discussion of these findings confirms several important points. First, the field findings are consistent with the literature showing the ambivalence of technology: although digital platforms expand opportunities for collaboration and social support, online interactions tend to be brief, task-oriented, and sometimes performative, so that the quality of social bonds differs when compared to face-to-face interactions (West et al., 2023; Dienlin & Przybylski, 2020). Second, the role of digital skills and technical access greatly determines the quality of participation: groups of students with higher digital capacity are more productive and find it easier to build online collaboration, while students who experience limited access or digital capabilities are at risk of being marginalized from these collaborative networks (Timotheou et al., 2022; Kwiatkowska & W., 2022).

Third, the practical implications of these findings call for a balanced approach: schools need to design online collaborative learning that not only demands task output but also instills collective responsibility and teamwork ethics; digital literacy programs and access equity policies must be strengthened to ensure inclusive digital collaboration; and face-to-face activities (e.g., community service, direct group discussions) must be maintained to preserve a deep sense of togetherness and traditional norms of mutual cooperation (Purboningsih et al., 2023; Kruzan et al., 2022).

Technology has reformulated the patterns of social interaction among students: it accelerates coordination and opens up new spaces for solidarity, but it also changes the way social bonds are formed. Therefore, educational strategies that combine good digital instructional design, digital literacy/inclusion, and face-to-face activities need to be pursued to maintain the quality of mutual cooperation in the digital economy era.

The results of the study show that although digital interactions are able to expand social networks and strengthen connectivity between students, there is a tendency for individualistic attitudes to emerge among junior high school students in Central Mamuju. This phenomenon is evident when students spend more time on personal activities in the virtual world, such as playing games, watching entertainment content, or building their identity through social media, rather than participating in collective social activities. According to research by Oktaviani and Nurhasanah (2020), digitalization has shifted the social orientation of adolescents from togetherness to individual self-expression, which often creates social distance in the real environment.

In an international context, a study by Lee and Kim (2021) in South Korea found that excessive use of social media has a paradoxical effect: on the one hand, it increases feelings of social connection, but on the other hand, it creates social isolation due to a reduction in face-to-face interaction. This condition shows that digital solidarity is not always directly proportional to

real social solidarity. Students may feel "connected" online, but lose social empathy in their daily lives.

Deborah Lupton's (2022) book Digital Sociology also asserts that today's digital society is undergoing a process of individualized collectivism, in which individuals become part of an online community without truly experiencing deep emotional attachment. This phenomenon is relevant to the results of research in Central Mamuju, which shows a change in the meaning of mutual cooperation from physical participation together to a more pragmatic and efficient form of virtual support, but one that tends to weaken direct social closeness.

Thus, although digital technology opens up new opportunities for collaboration among students, it also creates the risk of social fragmentation and weakens traditional values of mutual cooperation. The challenge lies in how education and school policies can balance the use of technology with the strengthening of social interactions based on empathy and genuine togetherness.

Socio-Cultural Factors and Educational Adaptation to the Value of Digital Mutual Cooperation

The results of the study show that the socio-cultural environment and education system play an important role in maintaining and adapting the value of mutual cooperation in the digital age. In Central Mamuju, the family continues to function as the main space for social learning, where the value of togetherness is instilled from an early age through daily activities such as cleaning the house together or helping other family members. According to Sari and Damanik (2021), families act as "primary socialization agents" that instill the values of collectivity and social empathy, which form the basis of mutual cooperation, even when children begin to interact in digital spaces.

Schools, as educational institutions, also play a role in adapting the value of mutual cooperation through collaborative learning approaches that utilize technology. Programs such as online group projects and digital extracurricular activities help students internalize cooperation in a way that is more relevant to the current context. International research by Tondeur et al. (2020) shows that digital-based education that focuses on collaborative learning can increase social responsibility and strengthen bonds between students, even when conducted virtually.

In addition, the local culture of Central Mamuju, which is still strongly rooted in community solidarity,

is an important foundation for shaping digital mutual assistance. The local community continues to emphasize the importance of mutual assistance, even in new forms, such as cooperation in online fundraising for social activities or participation in digital education campaigns. This shows that the value of mutual assistance has undergone a transformation without losing its essence. In line with this, Sandoval's (2023) book Culture and Digital Transformation explains that local culture can function as a filter that maintains the sustainability of social values amid global technological change.

CONCLUSION

Based on the results and discussion of the study on the Value of Mutual Cooperation in the Context of the Digital Economy: A Social Study of Junior High School Students in Central Mamuju, it can be concluded that the transformation of the value of mutual cooperation in the digital era does not eliminate the essence of togetherness, but changes its form and medium in accordance with technological developments and the needs of the younger generation. Junior high school students in Central Mamuju now express mutual cooperation through digital-based collaborative practices, such as working together on online projects, sharing information on learning platforms, and providing moral support to each other on social media. This change shows that mutual cooperation has adapted into a form of digital solidarity that is flexible, fast, and relevant to their social ecosystem.

The role of schools is an important factor in maintaining the continuity of the value of mutual cooperation by integrating it into project-based learning and digital collaboration activities. Through this strategy, students not only master technological skills but also internalize the values of togetherness, responsibility, and cooperation that are characteristic of Indonesian culture. On the other hand, families and the local culture of Central Mamuju continue to serve as a moral foundation that reinforces the meaning of mutual cooperation, so that digital collaborative practices remain grounded in the principles of social solidarity and care for others.

This study also reveals that the digitization process brings challenges in the form of individualistic tendencies due to the high intensity of virtual interactions. Therefore, educational strategies that

emphasize value reflection, social experience-based learning, and contextual approaches based on local wisdom are needed so that digital mutual cooperation does not only become a functional activity but also a means of strengthening students' social bonds and national character.

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