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Crowdfunding from the perspective of young people

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Abstract

Research aims: This study aims to identify the dominant factors that make young people interested in joining or using crowdfunding platforms.

Design/Methodology/Approach: This research was conducted using the topic method or text analysis with the Social Network Analysis (SNA) approach. Data in the study were obtained by distributing questionnaires to 201 respondents who were young people aged 19 to 22 years.

Research findings: The results of this study revealed that the dominant factors attracting young people to use crowdfunding include web technology, ease of use, high rate of return, transparency, and legality. The results of this study indicate that convenience is the primary attraction for young people in transactions.

Theoretical contribution/Originality: The results of this study offer indicators that can be used to measure, in particular, the usability variables of web-based crowdfunding platforms in TAM (Technology Acceptance Model). These indicators encompass the amount of return, clarity of business fields and objectives, and transaction security. As for the variables of ease of use, among others, clarity of navigation and information on the web makes users comfortable.

Practitioner/Policy implication: The findings of this study imply that Web 2.0 has become a suitable way of interacting with young people. Hence, crowdfunding platform websites need to be designed to support ease of transactions. However, accountability, transparency, clarity of effort, reciprocity, and legality can be effective campaign methods to attract young people to contribute to crowdfunding.

Research limitation/Implication: This study used researchers' judgment to interpret the meaning and the relationship between keywords in sentences submitted by respondents in questionnaires.

Keywords: Accountability; Crowdfunding; Technology; Young People

Introduction

The high public adoption of mobile technology has encouraged great accessibility to the ease of electronic-based financial transactions, which also encourages various online business platforms. The support of Web 2.0 technology has substantially impacted organizations by presenting a crowdfunding platform for fundraising, whether it is business or social. For businesses, the platform has provided an efficient funding alternative to conventional funding systems(Battisti et al., 2021). In Indonesia, crowdfunding has increased along with the increase in fintech adoption since 2016, which reached 78% (Arifah & Dalimunthe, 2021).

The issuance of The Financial Services Authority Regulation (POJK) Number 57/POJK.04/2020 is also a form of genuine support from the Indonesian government for the growth of equity-based crowdfunding in Indonesia, which reached a funding value of USD 43.16 million (Kusumaningrum et al., 2023).

Increasing crowdfunding penetration of online platforms has attracted many researchers to understand the factors that can influence the success of crowdfunding platforms since 2010 (Shneor & Vik, 2020). Previous research has shown that crowdfunding campaigns are vital in attracting many people to contribute to the platform (Liu et al., 2018). Therefore, previous research has revealed many factors that make crowdfunding campaigns successful in attracting contributors. Some of the factors identified in previous research include technical, cognitive, behavioral, and affective factors (Gosain & Agrawal, 2021). Several crowdfunding platforms in past studies have also mentioned that technical factors of the system, covering network, location, web view, and innovation, can attract people to infest. In addition, non-technical factors, such as marketing, trust, campaigns, and business factors, such as the number of rewards and the amount of initial investment, can affect people's intention to invest through crowdfunding platforms (Deng et al., 2022).

Although previous research has demonstrated the success factors of crowdfunding campaigns, it has shown that no dominant factor can attract people to contribute to crowdfunding (Deng et al., 2022; Gosain & Agrawal, 2021). In this case, finding the most dominant factor is challenging in formulating a crowdfunding success strategy (Deng et al., 2022). Therefore, the many success factors of crowdfunding still require to be tested in the context of the corresponding problem (Shneor & Torjesen, 2020; Shneor & Vik, 2020). Moreover, understanding the knowledge structure of many people in the context of a particular problem, namely crowdfunding, can be a way to find the most attractive factors of crowdfunding platforms. The structure of knowledge itself is a picture of what people understand about an issue or topic. In the context of this study, this knowledge structure can also be a picture of the tendency of issues sought, needed, or considered necessary in the issue of crowdfunding success. Thus, understanding the structure of people's knowledge of crowdfunding will provide a more comprehensive understanding of the dominant factors that attract people to contribute to crowdfunding (Park & Park, 2021; H. Zhou & Ye, 2021).

To understand the dominant factors attracting people to contribute to crowdfunding, this study used text analysis with a Social Network Analysis (SNA) approach to identify the dominant factors in crowdfunding success. Deng et al.'s (2022) research uncovered that the regression method is the most widely used method for finding crowdfunding success factors. The study exposes gaps in previous research related to the methods used to uncover the success of crowdfunding. Here, regression methods are particularly good for predicting the factors that create crowdfunding success, but with so many factors and models resulting from regression in previous studies, it can be challenging to determine the factors that make crowdfunding successful (Deng et al., 2022). Furthermore, some previous studies have employed the SNA approach to assess the propensity of a problem topic (Bernardino & Santos, 2020; Previati, 2021). This approach

indirectly shows the factors that attract the most attention from a problem or topic context. Thus, the SNA approach can be used to describe the structure of knowledge related to the appeal of crowdfunding (Park & Park, 2021). Lynn et al. (2020) also used SNA to understand effective crowdfunding campaign patterns on Twitter.

The increased use of crowdfunding platforms has encouraged the interest of researchers to examine the factors influencing the success of crowdfunding. However, the main attraction in crowdfunding success has not been identified in previous research (Deng et al., 2022; Gosain & Agrawal, 2021). Therefore, this study aims to uncover the dominant factors for people contributing to crowdfunding. To achieve this goal, this study employed SNA methods that have not been widely used in assessing the attractiveness of crowdfunding, where the following research shows that regression methods are more widely utilized to uncover crowdfunding success factors. To give a novelty to previous research, this current study involved young people respondents to assess what factors made them interested in contributing to crowdfunding platforms. Previous research did not specifically show how young people might be attracted to contribute to crowdfunding platforms, although research by Bhardwaj et al. (2019), Arifah and Dalimunthe (2021), and Warwas et al. (2022) have shown the phenomenon of high youth involvement in digital finance, including crowdfunding. By identifying the dominant factors attracting young people, the success factors of crowdfunding platforms can be prepared for the future.

Literature Review

Young People and Digital Finance

The development of crowdfunding in Indonesia has never been separated from financial technology (fintech) development. Fintech is a contraction of "finance" and "technology," meaning that companies provide financial services through technology integration (Bhardwaj et al., 2019). According to the Indonesian Fintech Association, fintech practices in Indonesia are still dominant in the payment business at 43%, loan services at 17%, and the rest in the form of aggregators, crowdfunding, and others. Every year, the number of fintech in Indonesia also increased from four companies in 2006 to 165 companies in 2016 and 366 companies by 2023 (Annur, 2023; Pratono et al., 2020).

Furthermore, the Indonesian government mentions that national financial needs are around IDR 1,600 trillion annually. However, existing financial services can only meet about one-third of those needs. Therefore, in addition to the banking sector, other more innovative financial institutions are believed to increase public access to financial services that can support financial inclusion and contribute to advancing the Indonesian economy (Arifah & Dalimunthe, 2021). Although the development of crowdfunding is not as high as other fintech products, research conducted by Lynn et al. (2020) indicates that Indonesia ranked 12th out of the 20 countries in crowdfunding discussions on social

media, primarily through Twitter, in 2020. This condition denotes a young person's interest in this crowdfunding platform for entrepreneurs and the broader community.

The ease of financial access to crowdfunding platforms is an attractive point for young entrepreneurs who are about to start a business. As a result, crowdfunding platforms are also an alternative investment for young people who will become investors. This condition was shown in a study conducted by Hariwibowo et al. (2022) on social media communities on a crowdfunding platform. Their study revealed that the crowdfunding community was dominated by young people (aged 30-40). The interest of young people in contributing through crowdfunding is also shown in Arifah and Dalimunthe's (2021) research. The research conducted in Indonesia exposed that the interest of young people in utilizing or choosing digital financial platforms, one of which is crowdfunding platforms, occurs as the impact of digital financial literacy gets more robust in the younger generation. This phenomenon is also demonstrated by the research of Warwas et al. (2022), showing that young people's ability to adapt to technology quickly is the key to their involvement in digital finance in Poland, which represents the situation in Europe. The phenomenon shown by previous research denotes the profound influence of young people on the development of digital finance.

Crowdfunding Development

Crowdfunding is the activity of raising funds from many individuals or organizations over the Internet to support a particular program or issue (Mollick, 2014; Rossi, 2014). In this case, the organizers of the crowdfunding platform do not collect funds from professional investors but are open to many people. Crowdfunding is a two-sided market that connects crowd funders and investors through crowdfunding platforms. These platforms do not borrow, aggregate, or lend money in their name but allow investors to contribute funds, usually on an all-or-nothing or keep-it-all principle (Belleflamme et al., 2014; Lambert & Schwienbacher, 2010). The economic model for these platforms is usually based on commissions from funds raised or donations received. The platform caters to a wide range of projects, including products, experiential items, to social programs (Cumming & Vismara, 2017).

This form of fundraising through crowdfunding has become a new way for many people who are about to start a business but experience a lack of funds. Crowdfunding differs from traditional venture capital investments in terms of investor or contributor characteristics, investment model, and the relationship between investor and financed (Bernardino & Santos, 2020). Investors or contributors in crowdfunding are generally not professionals and may be more influenced by their social relationships than the process of professional business analysis. Crowdfund investment models vary and include donations, rewards, financing, and equity-based. The relationship between investors and beneficiaries of funds is also different from traditional investment models (Battisti et al., 2022). Different forms of crowdfunding allow different forms of screening by investors or contributors.

The development of crowdfunding itself has attracted much research in this area. Research on crowdfunding is currently related to incentives and motivations to start or participate in crowdfunding projects. According to Gerber and Hui (2013a), initiators and funders are driven by internal and external factors. Extrinsic factors include fundraising (for the initiator) and buying an item or experience (for the funder). In contrast, intrinsic factors encompass things like social interaction, reinforcing commitment to an idea based on feedback (for the creator), and bonding with a group of people who share your interests and ideals (funders) (Hui et al., 2014). The second is related to the success of the crowdfunding campaign.

According to research on what makes a campaign successful, factors such as project quality (Mollick, 2014), location distance between the campaign creator and funder (Shneor & Vik, 2020), and the internal social capital of the entrepreneur (Colombo et al., 2015), play an important role in luring early investors and influencing the success of crowdfunding campaigns. Various ways can be done to attract contributions in crowdfunding, ranging from offering contribution rewards to humanitarian approaches. Previous research has shown several factors that can influence the success of crowdfunding platforms in attracting funds from the community, including the formation of trust (H. Zhou & Ye, 2021; M. Zhou et al., 2018a), (Forbes & Schaefer, 2017); the existence of social networks (Datta et al., 2019; Leone & Schiavone, 2019); amount of reward (Zhao et al., 2017); location (Gafni et al., 2019); amount of seed funding (Hornuf & Schwienbacher, 2018); WebView (Alegre & Moleskis, 2021); narrative/Information (Manning & Bejarano, 2017; M. Zhou et al., 2018b); quality of service and system (Nitani et al., 2019); transparency (Hariwibowo et al., 2022); and innovation (Cheng et al., 2018).

In addition to the abovementioned factors, the latest phenomenon signifies that social media promotes crowdfunding. Previous studies have noted the opportunities and benefits of social media, Twitter as an example, for entrepreneurs and small businesses (Obschonka et al., 2017). In the business financing literature, recent research unveils a link between entrepreneurs' social media activity, start-up engagement, and business financing (F. Wang et al., 2017). In addition, the extant literature on crowdfunding highlights the critical role of social media and online communication in the context of crowdfunding (Gierczak et al., 2016). For example, many studies have noted a link between the number of social media followers and crowdfunding success (Datta et al., 2019). A few studies have explored foreigners' role in crowdfunding success. Hui et al. (2014) identified that foreigners play a vital role in crowdfunding projects. Focusing on perceptual relationships, Davison and Poor (2015) found that a perceived proportion of known funders negatively predicted project success. More recently, Borst et al. (2018) discovered that project proponents need to vary the type of social media messages to attract funds from latent or distant ties, i.e., strangers, depending on the network. They found that call-to-action messages were more effective on Facebook, and informative messages were more effective on Twitter. In addition, their results suggest that sending more tweets negatively impacts weak and latent bonds, potentially explained by the bystander effect (Borst et al., 2018).

The many factors offered by previous research denote the complexity of the online crowdfunding business process. Thus, this makes it difficult to determine the factors that most affect the success of crowdfunding because many factors are interrelated. Therefore, this study focuses on the following research question:

RQ: What factors predominantly attract young people to contribute to crowdfunding platforms?

Text Analysis and Social Network Analysis (SNA) in Crowdfunding

Text analysis is based on SNA aimed at analyzing and understanding the dominant topic of text material in big data (Park & Park, 2021). Network theory, which forms the basis of the SNA approach, explains that everything interrelated can be explained in a network (Wichmann & Kaufmann, 2016). SNA also explains that the network links nodes and ties or edges. Nodes can be anything; examples are actors, locations, items, ideas, keywords, and others. In comparison, ties or edges can be relationships, transactions, locations, interactions, and others (Lynn et al., 2020; Wichmann & Kaufmann, 2016). In text analysis, nodes are text/words/keywords that reflect information, while edges are links between words or information. Although the basis of SNA is social network theory, which is widely used to reveal the role of actors in networks, in its development, the SNA approach is also used to reveal ideas or topics of a broad issue (Y. Kim & Jang, 2018; Park & Park, 2021).

In research methodology, the application of analytical texts has recently experienced rapid developments. Along with the increase in the number of studies in various databases, analytical texts are utilized to find knowledge structures, research gaps, and research trends in various disciplines (Y. Kim & Jang, 2018). Understanding the structure of knowledge in a problem context is one of the essential points offered by the text analysis approach in describing numerous factors in an issue (Y. Kim & Jang, 2018; Park & Park, 2021; Sánchez-Franco et al., 2017). Text analysis will display text data as a network of words that can be used to identify trends in people's perceptions of a particular problem or group (Sánchez-Franco et al., 2017). Understanding words in the network will provide a broader understanding of an issue being discussed or wanting to know. In text analysis, topic analysis in the network indirectly shows the thought process or structure of knowledge that exists in a group being observed (Marra et al., 2016). Thus, these results can show the relationship of one factor or issue with another factor collectively and naturally (Wichmann & Kaufmann, 2016).

Several recent studies have also applied the SNA-based text analysis approach in crowdfunding. Text analysis through social media is research that is widely done today. Research by Lynn et al. (2020) using SNA's approach on Twitter social media found the influential actors in distributing information about crowdfunding. The SNA approach was also used in network analysis on Linked In social media (Graziano et al., 2023) and Facebook (Menon et al., 2018). The research explains the relationship pattern of interested parties in crowdfunding. The research, even though it used different social

media objects, has almost the same goals and results, which is to explain how parties interested in crowdfunding (young entrepreneurs, consumers, business owners) interact with each other (Leone & Schiavone, 2019; B. Wang et al., 2017). From this interaction pattern, it can be understood how information flows and how one party reacts to other parties in a group more naturally; i.e., those who benefit from crowdfunding will be more encouraged to campaign crowdfunding. Thus, the use of the SNA approach can explain who and what factors can affect the success of crowdfunding (Graziano et al., 2023; Hui et al., 2014; B. Wang et al., 2017).

Although the SNA approach has begun to be widely used in crowdfunding research, Shneor and Vik's (2020) and Deng et al.'s (2022) research show that regression approaches dominate more research on crowdfunding success. Social media is also a place that is widely used in text analysis and SNA research. Therefore, this study supports Previati's (2021) research, which suggests the need for new approaches in crowdfunding research, one of which is the SNA approach.

Research Method

Data Collection Method

This descriptive study used text analysis to explore keywords or topics about young people's interest in crowdfunding. To uncover the factors attracting young people to contribute to business crowdfunding, this study employed the SNA approach to understand young people's collective interest in crowdfunding. Thus, a comprehensive picture of the knowledge pattern or structure of young people interested in crowdfunding can be better understood.

This study involved student respondents as representatives of young people to be observed. To obtain data, the study used an interview method delivered through questionnaires with open-ended questions. Questions were submitted electronically via MS Form for three months. Students could voluntarily take this survey. To ensure that students understood crowdfunding, before answering the questions, students were given an explanation and examples. The explanation and example of crowdfunding given is a crowdfunding platform related to business, namely loan crowdfunding. Loan crowdfunding is the most common type of business crowdfunding platform in Indonesia. Thus, students would find getting real examples of crowdfunding business practices easier.

Students involved were those taking information systems and business courses. Thus, students are expected to understand better the context of technology and business closely related to crowdfunding platforms. The questions asked of respondents were as follows: 1) Name the crowdfunding platform you studied; 2) Name what factors make you interested in contributing to business crowdfunding/equity; 3) Explain how these factors can attract you to be able to contribute or participate in crowdfunding.

Before answering the questions above, students got an explanation of what crowdfunding platforms are and how they work. The first question aimed to evaluate the extent to which the crowdfunding platform had been studied. This first question was done to ensure that students had a sufficient understanding of activities in crowdfunding. The second and third questions were questions to be analyzed at a later stage. Both questions were intended to reveal students' experiences interacting with crowdfunding platforms.

Research Procedure

Keyword network analysis assumes that a set of keywords representing core contents can be extracted from the literature (Park & Park, 2021). The results of respondents' answers would be analyzed to be able to find relationships between one node or topic with other nodes (Figure 1), using: 1) Interpretation of respondents' answers was by labeling keywords as codes according to the factors mentioned by respondents as a keyword. This stage was done by reading the respondents' answers one by one. Respondents' answers may consist of several sentences, but research provides meaning by determining keywords related to factors encouraging young people to be interested in contributing to crowdfunding. This keyword identification process was made easier by a second question asking respondents to simply name what factors attracted them to the previously studied crowdfunding platform; 2) Metric and network keywords from identified keywords were compiled. Researchers would link keywords described by respondents to each respondent and identified in the previous stage. This can be found as a pattern or relationship between one keyword and another; 3) Keyword analysis and visualization used Gephi software, which is widely used to process network data in SNA. The results of the relationship between keywords would then be entered into the Gephi software to be analyzed with the SNA approach.
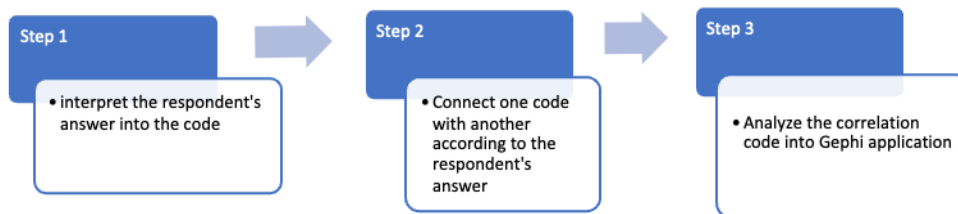

Figure 1 Analysis Steps

The Gephi 0.9.2 application provides many results from SNA analysis. However, to find out what topics attracted young people the most to contribute to crowdfunding platforms, SNA analysis used the modularity analysis results to identify big topics and degree centrality to assess important topics produced by Gephi. Modularity is an SNA analysis that shows a group of nodes or keywords that have similarities or are in the same community or context (Hagel et al., 2017). With modularity analysis, information can be obtained on the main topic that attracts respondents (Hagel et al., 2017; Park & Park, 2021). Meanwhile, the degree of centrality indicates the node or keyword that is the center or reference of the network (Cheng et al., 2018). Widely used degrees of

centrality are closeness centrality, indicating the node with the shortest path of all connected edges in the network, and betweenness centrality, which denotes many nodes are associated with nodes in the network (Cheng et al., 2018; Zhang & Luo, 2017). In text analysis research, closeness and betweenness centrality are also used to understand which keywords are central to the overall topic (Cheng et al., 2018; Y. Kim & Jang, 2018; Park & Park, 2021).

Result and Discussion

Respondents' Descriptive Data

The number of students involved in this research as respondents until the specified deadline was 201 (Table 1). The average age of students involved was 19 to 22 years. From the first question related to the platform studied and used as an example by students, there were crowdfunding platforms chosen by students, including amartha.com, modalrakyat.id, bizhare.id, in which all are based on well-known crowdfunding loan platforms in Indonesia.

Table 1 Description of the respondent

Description of the respondent	
Gender	
Male	69
Female	132
Subject	
Information Management	125
Design and Analytic System	50
Public Accounting	26
Age	
19	32
20	93
21	50
22	26

Following network theory, SNA analysis is widely used to understand network patterns. The degree of centrality is more used to show the most influential actors or parties on the network in the SNA approach. However, in the context of a network consisting of nodes and ties, the node with the highest degree of centrality indicates the center of the network. Nodes in SNA can be anything; in this study, the nodes used were factors or topics submitted by respondents.
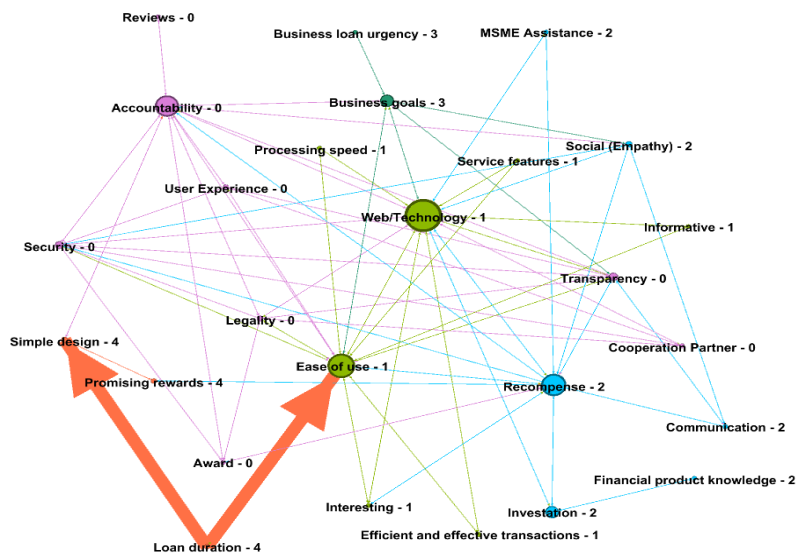
From the interpretation of respondents' answers, it can be known that respondents often mentioned 26 node keywords or factors or topics and 125 connections between nodes or factors. These nodes, keywords, or factors indicate factors related to crowdfunding platforms that attracted their attention. Thus, 26 factors attracted students to contribute to the crowdfunding platform, which will be analyzed later (Table 2).

Table 2 Frequency of occurrence

Nodes/Keywords	Frequency of occurrence	Nodes/Keywords	Frequency of occurrence
Web/Technology	16	Simple design	3
Ease of use	14	Cooperation partner	3
Recompense	11	Promising rewards	2
Accountability	11	MSME assistance	2
Transparent	9	Loan duration	2
Security	9	Informative	2
Legality	7	Processing speed	2
Social (Empathy)	5	Service features	2
Business goals	5	Communication	2
User experience	5	Efficient and effective	2
Award	4	loan urgency	1
Interesting	3	Financial product knowledge	1
Investment	3	Reviews	1

Modularity Results

The modularity results show a similarity or closeness between nodes or factors. In this study's context, the modularity magnitude indicates the topic's closeness, indirectly illustrating respondents' interest in an issue (Cheng et al., 2018; Y. Kim & Jang, 2018; Park & Park, 2021). The greater the modularity, the more dominant the topic discussed. The SNA calculation results from the Gephi application depicted five modularity groups (0-4) from the factors submitted by respondents. Figure 2 displays that the first modularity is purple, the second is green, the third is greener green, the fourth is navy green, and the last is orange.

Figure 2 Visualization of respondents' answers in SNA networks

The results of the Gephi analysis revealed that modularity 0, the first group, was the largest, reaching seven nodes or factors from all nodes, factors, or topics analyzed. Meanwhile, modularity 3, the fourth group, was the smallest, consisting of only two nodes, factors, or topics. Details of nodes in modularity can be observed in Table 3.

Table 3 Modularity results

Modularity 0 (Group 1)	Modularity 1 (Group 2)	Modularity 2 (Group 3)	Modularity 3 (Group 4)	Modularity 4 (Group 5)
Transparency	Web/Technology*	Recompense*	Business goals*	Promising rewards
Legality	Ease of use*	Communication	Loan urgency	Simple design
Security	Interesting	MSME assistance		Loan duration
Accountability*	Informative	Investment		
User experience	Processing speed	Social (Empathy)		
Cooperation partner	Service features	Financial product knowledge		
Award	Efficient and effective transactions			
Reviews				
*: Keywords or topics with the highest betweenness of centrality in the group				

From the SNA results in Table 3, it can be seen that group 1 was more dominated by credibility-related topics. Credibility is an essential factor in previous research that can influence the success of crowdfunding campaigns (Bukhari et al., 2020; J. G Kim et al., 2016). In group 1, one topic had the highest between centrality and accountability. Group 2 is a group dominated by topics related to technical matters. These results also align with research (Battisti et al., 2021; Liu et al., 2018), exposing the technical importance of technology in the success of crowdfunding campaigns. Group 3 consists of factors or topics dominated by problems with information or crowdfunding campaign narratives (Manning & Bejarano, 2017; Zhao et al., 2017). Group 4 comprises two factors that indicated young people's interest in crowdfunding goals, with business goals as a topic that had a high level of betweenness centrality in the group. Related to that, previous research has shown that crowdfunding objectives, reflected through the form or type of project, will influence the success of crowdfunding campaigns (Gerber & Hui, 2013b; Mollick, 2014). Group 5 has three topics: promising rewards, loan duration, and simple design. Although no topic had the highest level of betweenness or closeness centrality in modularity, group 5 owned a higher density than other bonds (judging from the thick lines in Figure 2). These results signify that young people are attracted by a simple transaction process with attractive reward values (Zhao et al., 2017).

Degree of Centrality

The degree of centrality can be understood as the central topic of the overall topic delivered by the respondents. The higher the degree of centrality, the more the topic is related to many other factors or topics in the body. The SNA analysis results utilizing Gephi exhibited that web technology possessed the highest degree of centrality based

on betweenness centrality, closeness centrality, and eigen centrality (Table 4). These results indicate that web technology is the most dominant topic of all topics, where this factor connected many other factors in the topics submitted by respondents related to interest in crowdfunding. In other words, technology on the website is a major reference topic for young people in considering all aspects of crowdfunding platforms (Y. Kim & Jang, 2018; Park & Park, 2021).

Table 4 Degree of Centrality Results

Label	Closeness centrality	Betweenness centrality	Eigen centrality
Web/Technology	**0.735294**	**89.117857**	**1**
Ease of use	**0.675676**	**62.259524**	**0.917061**
Recompense	**0.641026**	**55.390476**	**0.815596**
Accountability	**0.641026**	**52.335714**	**0.892545**
Business goals	0.543478	**24.533333**	**0.514134**
Investment	0.480769	**24**	0.227727
Transparency	**0.595238**	11.809524	**0.789948**
Security	**0.595238**	9.85119	**0.950543**
Social (Empathy)	0.543478	4.766667	0.541414
Legality	0.543478	4.075	0.648247
Simple design	0.423729	4.042857	0.142264
Loan duration	0.431034	2.033333	0.131407
Promising rewards	0.416667	1.95	0.119162
User experience	0.490196	1.625	0.47685
Cooperation partner	0.471698	0.733333	0.373465
Award	0.471698	0.309524	0.40181
Communication	0.438596	0.166667	0.261737
Financial product knowledge	0.328947	0	0.029087
Business loan urgency	0.357143	0	0.062996
Reviews	0.396825	0	0.108705
MSME assistance	0.462963	0	0.222619
Informative	0.454545	0	0.234864
Processing speed	0.454545	0	0.234864
Service features	0.454545	0	0.234864
Efficient and effective transactions	0.454545	0	0.234864
Interesting	0.490196	0	0.334903

The degree of centrality analysis results in SNA showed the highest order of three topics in the closeness of centrality and betweenness of centrality: web/technology, ease of use, and return rate. In eigen centrality, the three topics mentioned were web/technology, security, and ease of use. If these three centralities are combined, the dominant topics in the structure of young people's knowledge of crowdfunding platforms include technology, convenience, returns, and security. These results are supported by Deng et al. (2022) and Shneor and Vik (2020, who explain that these topics affect the success of crowdfunding.

Discussion

This study aims to provide an overview of the dominant topics in attracting young people to contribute to crowdfunding. The SNA analysis results provide an overview of how young people's knowledge structure interested them in crowdfunding platforms by analyzing the topics. From the degree of centrality, it can be understood that crowdfunding topics that appealed to young people encompassed website technology, ease of use, significant rate of return, accountability, and business goals. Meanwhile, the SNA modularity results revealed that five major topics can be used to illustrate the tendency of topics that attract young people to contribute to crowdfunding. The attractiveness of technology, management accountability, business goals, and the magnitude of return indirectly showed the most attractive factors for young people.

The first finding from the SNA results is business credibility, which is related to transparency, accountability, and legality. Modularity 0, or group 1, was the first topic with the largest modularity, 8 out of 26 factors or topics or 30.7% of the network. These topics include transparency, legality, security, accountability, user experience, cooperation partners, awards, and reviews, showing the business's credibility in the crowdfunding platform. These topics are essential in building trust, thus motivating people to participate in crowdfunding projects (Forbes & Schaefer, 2017; H. Zhou & Ye, 2021; M. Zhou et al., 2018a).

The presence of accountability and transparency of information as a topic chosen by young people indicates that these factors are vital for building trust. This is also supported by the SNA analysis results, showing that accountability had the highest degree of centrality in shaping the perception of legality in crowdfunding. Nevertheless, topics related to crowdfunding transparency and accountability concerning the success of crowdfunding campaigns are still rarely researched (Deng et al., 2022). This is supported by research conducted by Hariwibowo et al. (2022), explaining that transparency can encourage the formation of trust and people's intention to contribute to crowdfunding. The research also elucidates, based on agency theory, that the magnitude of demands for transparency and accountability for crowdfunding is also driven by the transactional value of contributors or donors. In other words, the higher the transactional value, the higher the demand for crowdfunding transparency.

The importance of transparency as a form of accountability can also be a new campaign style for crowdfunding platforms to attract young contributors (Bernardino & Santos, 2020; Bhardwaj et al., 2019). Previous research has explained that trust and credibility factors can influence the success of crowdfunding, while this study illustrates that factors in group 1 could form credibility and create trust. Thus, the development of crowdfunding platforms needs to pay attention to transparency, legality, security, accountability, user experience, cooperation partners, awards, and reviews to build a positive image and credibility and attract young people to contribute to crowdfunding.

Modularity 1 or group 2 is a group of topics with the number of nodes or factors second only to group 1, consisting of 7 out of 26 factors or 26.9%. Factors or topics in this

second group were dominated by topics related to technology in crowdfunding platforms. As in Table 2, the study results demonstrated that young people's interest in technology in crowdfunding platforms is related to ease of use, interest, information, processing speed, service features, and efficient and effective transactions. Of these topics, two had a high degree of centrality: website technology and ease of use of crowdfunding platforms. This result is indirectly explained by the TAM theory that convenience and usability encourage people to adopt the technology. TAM is a theory used in many studies to assess how much technology can be adopted. The results of this study indicate that both factors and variables in TAM are still relevant to assess the extent to which crowdfunding platform technology can be adopted.

The importance of technological aspects has also been explicated in previous research. A study by Zolper et al. (2014) elucidated that technology is different in creating effective social interaction. This indicates that technical aspects of crowdfunding campaigns can encourage young people to communicate more intensely with social networks on crowdfunding platforms, thus influencing crowdfunding success (Liu et al., 2018; Nitani et al., 2019; Pratono et al., 2020). Factors such as web appearance design, features, and ease of process are among those that cannot be separated from the use of the website as the basis of the crowdfunding platform, where the presence of web technology itself is a trigger for the increase in crowdfunding platforms (Battisti et al., 2021) The development of this technology facilitates transactions in crowdfunding platforms, which have now become a lifestyle for young people (Bhardwaj et al., 2019). The findings made through text analysis denote that the ability to leverage the technology of building social networks in crowdfunding platforms will drive crowdfunding success through more effective campaigns (Borst et al., 2018; Datta et al., 2019; Leone & Schiavone, 2019).

Following that, modularity 2, or the third group of topics, is associated with the business value of crowdfunding. In this third group, the amount of promised return was the topic that attracted young people the most, with the highest degree of centrality in this third group. The magnitude of this rate of return is also related to communication, assistance to small and medium enterprises, social empathy, investment, and knowledge of financial products. The extent to which young people view crowdfunding as a form of investment can also be related to the extent to which young people understand financial products for investment (Cornelius & Gokpinar, 2020). The topic in Modularity 2 is also a form of young people's support for the presence of social entrepreneurship (Cumming & Vismara, 2017), which combines business and social activities.

Nevertheless, the aspect of financial gain remains a consideration of the interest of young people. Nitati et al.'s (2019) research stated that the element of rationality can never be separated from investment decision efforts in crowdfunding. Profit and loss are rational considerations that cannot be separated from young people's decision to contribute to business crowdfunding. In this case, although not the greatest modularity, young people's understanding of financial digital inclusion will be able to influence their interest in considering the advantages and disadvantages of investing in crowdfunding (Bernardino & Santos, 2020; Bhardwaj et al., 2019).

In this study, the existence of the topic of social empathy in group 3 is a unique finding. This is possible because some of the platforms used by respondents in this study did raise crowdfunding for small businesses. These results suggest that young people's interest in crowdfunding can be a real effort to help small businesses as a form of social support (Cho & Kim, 2017). This finding is interesting because young people think that investing in small businesses through crowdfunding platforms is also done to help these small businesses. The results of young people's thinking differ from the research conducted by Eldridge et al. (2021). Their research showed that the presence of crowdfunding did not encourage innovation in SMEs. This condition is possible due to insufficient platform utilization or weak market expansion driven by SMEs, so it does not require additional funds from crowdfunding. However, some crowdfunding platforms in Indonesia raise small businesses as projects to lift small businesses with limited access to formal financial institutions (Pratono et al., 2020). Therefore, young Indonesians can assume that crowdfunding has something to do with SMEs that lack access to formal financial institutions. This is also the uniqueness of crowdfunding platforms, namely the business and social dimensions influenced by the local cultural situation (Josefy et al., 2017).

Next, modularity 3 is the fourth group of topics showing business goals that are clearly of concern for young people towards crowdfunding platforms. Group 4 is the smallest topic group, consisting of only two topics or factors, i.e., the purpose of the crowdfunding business and the urgency of the loan made, with business objectives as the center because it had a higher degree of centrality than the urgency of the loan. Previous research categorizes this topic as a characteristic of crowdfunding projects, which can influence crowdfunding success (Leone & Schiavone, 2019; M. Zhou et al., 2018b). The results of this study demonstrated that, although it is not the main thing that young people pay attention to, some types of crowdfunding projects can attract young people to contribute. If these results are attributed to other factors in the same modularity, projects that appeal to young people can provide project confidence through the narratives built into those platforms (H. Zhou & Ye, 2019, 2021; M. Zhou et al., 2018a). A study conducted by Gosain and Agrawal (2021) also exposed a link between project categories and the narrative that builds in crowdfunding. Selecting appropriate and knowledge-rich narratives will shape readers' understanding, namely potential contributors (Manning & Bejarano, 2017). This condition is explained by the media richness theory, which states that the media will form information that can influence one's behavior or decisions (Koch & Siering, 2015). This theory details that the more complete the media used in building narratives, the more effective information communication will be (Leone & Schiavone, 2019; Manning & Bejarano, 2017). Therefore, some crowdfunding platforms also utilize social media to build communication outside their websites (Battisti et al., 2022; Lynn et al., 2020).

The fifth group is the last group of modularity 4. The results in Figure 2 explain that group 5 had the most substantial density among other topics in the network, namely the relationship between loan duration and convenience and simple design, where the topic is closely related to how the transaction will be carried out (Battisti et al., 2021; Zolper et al., 2014). Density itself shows the strength of the relationship between one node and

another node. In Figure 2, it is shown with a thick line, where the thicker the density, the stronger the relationship. These results indicate that young people need information about the number of rewards and the length of loans that can be given, but they will consider how the transaction process needs to be carried out (Datta et al., 2019). Thus, it can be attributed that the desire to contribute to crowdfunding by young people will always be related to the technology of the crowdfunding platform, which includes how easy the transaction is, how the service features exist, and how information is displayed on the web (Battisti et al., 2021; Bhardwaj et al., 2019; Zolper et al., 2014).

Thus, the description of interesting topics for young people to contribute to crowdfunding naturally is also under the results of previous research. However, with the text analysis method with the SNA approach, the authors get an idea of which topics attracted young people the most, directly showing the most dominant factors in crowdfunding, as portrayed in Figure 3.
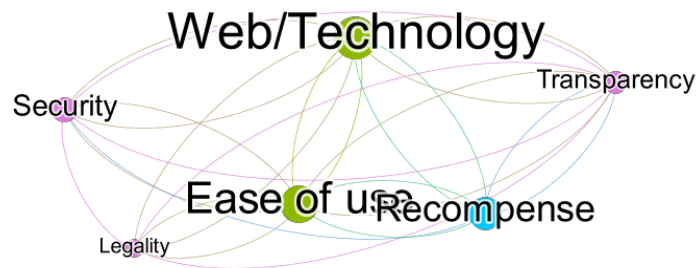

Figure 3 Relationships of the dominant topics in crowdfunding

With technology as the main topic that attracts young people to contribute, this research indicates that technology can function as an actor or mediator in building an effective crowdfunding network for the success of crowdfunding campaigns (Lynn et al., 2020).

Conclusion

Increased research in the field of crowdfunding has produced a broad picture of what factors can attract people to contribute to crowdfunding. The high involvement of contributions in a crowdfunding campaign indicates the success of a crowdfunding platform. From the many factors influencing the success of crowdfunding, this study was conducted to identify the dominant factors attracting young people to contribute to crowdfunding by identifying topics of interest to young people. The study findings using text analysis with the SNA approach revealed five groups of topics that showed the tendency of young people's understanding of crowdfunding, which can be an attraction for crowdfunding for young people. The five topics are credibility, technology, business value, business objectives, and transaction execution. In addition, the degree of centrality analysis uncovered that central topics attracting young people to crowdfunding comprise technology, ease of use, significant rate of return, and security. Indirectly, the topics indicate factors that are predominantly attractive to young people.

Thus, the development of crowdfunding platforms can pay attention to technological factors, convenience, compensation value, and credibility as the key to the success of non-donation crowdfunding platforms.

To achieve the objectives of this study, several things must be considered as weaknesses. The first is that this study used the perception of researchers to interpret the relationship between topics in sentences submitted by respondents in questionnaires. Some studies with the text analysis method utilized applications that can process words. This interpretation step was also carried out to reduce bias from the meaning of respondents' answers. However, there is an element of subjectivity in the interpretation. Second, the study results were obtained using text analysis, and SNA approaches that only showed relationships between nodes. Therefore, the extent to which nodes influenced each other remains to be further tested. Dominant topics can show people's interest in a topic, but whether the dominant topic affects other topics still needs further testing. In addition, this research could only provide a descriptive picture of the tendency of topics that young people were interested in contributing to crowdfunding. Therefore, future research can use the results of this topic to be tested using SEM, which can test the influence between topics or factors found in this study.

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Conflicts of Interest

The author declares no conflict of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, or in the decision to publish the results.