



# Program Book

**The 1<sup>st</sup> International Conferences on Engineering, Technology  
and Social Science (ICONETOS) 2019**

**Malang, 10-12 Oktober 2019**

**“The Integration among Islam, Science, and  
Technology:  
Challenge and Future Direction in Industrial  
Revolution 4.0”**



**Lembaga Penelitian dan Pengabdian Masyarakat**



The 1<sup>st</sup> International Conferences on Engineering, Technology and Social Science (ICONETOS)  
Malang, 10-12 Oktober 2019

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Universitas Islam Negeri Maulana Malik Ibrahim  
Malang  
2019

## Opening and Welcome Speech

Honorable Director of Islamic Higher Education  
Honorable Rector of UIN Maulana Malik Ibrahim Malang,,  
Distinguished Invited Speakers and Guests.  
Very good morning and Assalaamu-Alaikum.

To all our invited guests, speakers, and participants, a warm welcome to the beautiful Malang.

On behalf of the committee, I would like to welcome all participants to the first International Conference on Engineering, Technology, and Social Science (ICONETOS 2019) held by Research and Community Service Division of UIN Maulana Malik Ibrahim Malang.

Ladies and Gentlemen, it is truly an honor, and a privilege for UIN Maulana Malik Ibrahim Malang to host this international conference. I have no doubt in my mind, that this seminar will be a worthwhile experience. We have an opportunity to learn from some of the best experts in this field and I hope, we will all walk away from this conference, enriched with a better understanding of Islam, Science, and Technology in 4.0 Era.

This international level conference aims to be more specific in the development and cutting-edge papers related to Engineering, Technology, and Social Science. The main goal of ICONETOS 2019 is to provide an opportunity for academicians and professionals from various Islamic Engineering, Technology and Social Sciences, and related fields from all over the world to come together and learn from each other.

Today's conference is attended by 6 speakers representing experts on Engineering, Technology, and Social Science who will give insightful perspectives on the grand theme of the conference. The two-day conference provides 60 parallel sessions for scholars to have stimulating academic dialogue.

I would like to take this opportunity to express my sincere thanks to the organizers and in particular our honorable speakers. All of them have been working with us since the beginning of the planning stage and they are still here today for all of us, even though they are both very busy with their responsibilities at their agencies. We truly appreciate your dedication. Again, this international conference could not have been made possible without their supports. I hope that everyone would take the results of this program. I warmly welcome you again.

Dr.Hj. Tutik Hamidah  
The Chair of ICONETOS 2019





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Wassalamu'alaikum Warahmatullahi wa barakatuu.

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## About the Conference

High demand on integration of multidisciplinary studies has been the major concern in academic context. Acceleration and expansion offered by information technology has developed in such a way that it affects human existence and how to do things in ways that were not thought of before. The progress implies that many of the existing understandings, social practices and norms are in a position of necessity to contest, adapt, and even change. If not, then we will miss many things both opportunities and roles. Furthermore, if this development is not adequately anticipated, we may not only fail to anticipate contemporary challenges, but also fail to understand the complexity of reality. In the field of scientific studies the above phenomena have received numerous and varied responses from many circles. In relation to the relationship between religion (Islam), science, and technology, many scientific studies have been conducted as richly as possible, and have produced interesting findings. In acknowledgment of the pressures between science and religion, and as inquiry about progressively enters value-laden areas, propositions have been made for researchers to lock in with other communities on the moral, lawful, and social suggestions of science and innovations and for the 'public voice' to be brought into the developmental stages of decision-making.

LP2M UIN Maulana Malik Ibrahim Malang is pleased to announce that it will be hosting the 1st International Conference on Engineering, Technology, and Social Science (ICONETOS) 2019 from 10 to 12 October 2019 in Malang, East Java, Indonesia. This international level conference its aim to be more specific in the development and cutting-edge papers related to Engineering, Sciences and Technology.

The main goal of the ICONETOS 2019 is to provide an opportunity for academicians and professionals from various Engineering, Technology, and Social Science related fields from all over the world to come together and learn from each other. An additional goal of the conference is to provide a place for academicians and professionals with cross-disciplinary interests related to Engineering, Technology, and Social Science to meet and interact with members inside and outside their own disciplines.

ICONETOS 2019 aims to be a premier venue for researchers and industry practitioners to share their new ideas, original research results and practical development from Engineering, Technology, and Social Science. All accepted conference papers will be submitted for inclusion into reputable publisher (Scopus index) and journal (Indonesian Accredited Journal(SINTA 2)). The engineering or technology-related papers will be submitted to IEEE. The Social science-related papers will be submitted to Atlantis Press. Other types





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of publication will be offered based on author preference: Journal of Islamic Architecture, el-Harakah, Ulul Albab, Lingua, and ICONETOS Online Proceeding.

## Vision

This internasional level conference aims to be more specific in the development and cutting-edge papers related to Islam, Science, and Technology. The main goal of the conference is to intensively discuss the researchers' ideas and perspective in shaping the integration among Islam, Science, and Technology in Industrial Revolution 4.0.

## Themes

The Integration among Islam, Science, and Technology: Challenge and Future Direction in Industrial Revolution 4.0

## Sub-Themes

New Perspectives in Science and technology  
Society on Social Implication of Technology  
Herbal Industry and Engineering in Medicine  
Education Society

Shaping New Social Arena: Resource Mobilization Agenda in Industrial Revolution 4.0

Forming Social Movement: the Use of Virtual Media for Public Good  
Millenial generation and Online society: the quest of hybrid identity  
Reform and revitalization in higher education

Holistic Approach to Educational Development

Epistemological Bias in the physical and social sciences

Muslims and Politics in the post truth era

Civic education and leadership for millenial generation  
Islam and neuropsychology





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## Keynote Speakers



**Prof. Arskal Salim**  
*Director Of Islamic Higher  
Education*



**Prof. Greg Barton**  
*Alfred Deakin Institute for  
Globalization and Citizenship*



**Prof. Kaoru Nakasone**  
*Kindai University, Japan*

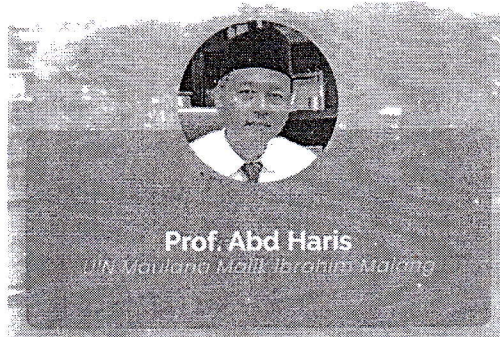


**Prof. Faisol Mahmud Adam  
Ibrahim**  
*Universitas Al-Qur'an Al Karoem  
Wa' Uum Al-Islamiyyah Sudan*





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## TIME TABLE

INTERNATIONAL CONFERENCE ON ENGINEERING, TECHNOLOGY AND  
SOCIAL SCIENCE (ICONETOS) 2019  
UIN MAULANA MALIK IBRAHIM MALANG  
10 – 12 OKTOBER 2019

### DAY 1, 10 Oktober 2019

| Time          | Description  | Venue |
|---------------|--|-------|
| 07.30 – 08.30 | Registration   | Hall  |
| 08.30 – 09.40 | Opening Ceremony:<br>Welcoming Dance: Topeng Dance<br>National Anthem "Indonesia Raya"<br>Qur'an Recitation<br>Welcoming Remark by Dr. Tutik Hamidah (Committee)<br>Opening Remark by Prof. Dr. Abdul Haris, M.Ag. (Rector of UIN Maulana Malik Ibrahim Malang)<br>Prayer<br>Dance Performance: Lenggang Nyai Dance<br>Closing | Hall  |
| 09.40 – 09.55 | Coffee Break   | Hall  |



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|               |   |                       |
|---------------|---|-----------------------|
| 09.55 – 12.25 | 1 <sup>st</sup> Plenary Session<br>1. Prof. Arskal Salim (Director of Islamic Higher Education)<br>2. Prof. Dr. Abdul Haris, M.Ag. (UIN Maulana Malik Ibrahim Malang)<br>3. Dr. Tutik Hamidah, M.Ag. (UIN Maulana Malik Ibrahim Malang) | Hall                  |
| 12.25 – 13.30 | Lunch, Praying & Check in Hotel   | Restaurant & Hall     |
| 13.30 – 14.30 | Parallel Session 1  | Hall, Scudeto, Winner |
| 14.30 – 15.30 | Parallel Session 2  | Hall, Scudeto, Winner |
| 15.30 – 15.45 | Coffee Break  | Hall                  |
| 15.45 – 16.45 | Parallel Session 3  | Hall, Scudeto, Winner |
| 16.45 – 17.45 | Parallel Session 4  | Hall, Scudeto, Winner |
| 18.00 – 19.00 | Dinner  | Restaurant            |

**DAY 2, 11 Oktober 2019**

| Time          | Description   | Venue                 |
|---------------|---|-----------------------|
| 06.30 – 07.30 | Breakfast   | Restaurant            |
| 08.30 – 11.00 | 2 <sup>nd</sup> Plenary Session<br>1. Prof. Greg Barton (Alfred Deakin Institute for Globalization and Citizenship, Australia)<br>2. Prof. Faisol Mahmud Adam Ibrahim (Universitas Al-Qur'an Al-Kareem wa 'Ulum Al-Islamiyyah, Sudan)<br>3. Prof. Akira Kikuchi (Hiroshima University, Japan) | Hall                  |
| 11.00 – 11.15 | Coffee Break  | Hall                  |
| 11.15 – 12.15 | Parallel Session 5  | Hall, Scudeto, Winner |
| 12.15 – 13.15 | Lunch & Praying   | Restaurant & Hall     |
| 13.15 – 14.15 | Parallel Session 6  | Hall, Scudeto, Winner |
| 14.15 – 15.15 | Parallel Session 7  | Hall, Scudeto, Winner |
| 15.15 – 16.15 | Parallel session 8  | Hall, Scudeto, Winner |
| 16.15 – 16.30 | Coffee Break  | Hall                  |
| 16.30 – 16.55 | Closing Ceremony:   | Hall                  |
|               | Closing Remark  |                       |
|               | Prayer  |                       |
|               | Closing   |                       |
| 18.00 – 19.00 | Dinner  | Restaurant            |





## THE APPLICATION OF E-COMMERCE FOR THE DEVELOPMENT OF COMPETITIVE SMALL-MEDIUM ENTERPRISES

Slamet

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The Small-Medium Enterprises are the backbone for economical and industrial growth of a nation because they play important role in absorbing the workforce, increasing the number of business units, and improving the family income. Considering the great contribution of small-medium enterprises to the public economic and public welfare, therefore, the strategic step is required for global competition. One considered strategy is the application of e-commerce system in the the Small-Medium Enterprises. Research method is a case study about tempe kripik artisans in Kampung Sanan, Malang City. Result of review indicates that 23.82 % artisans are already familiar with e-commerce system, while 39.48 % acknowledge information and communication technology and take benefit from internet for information searching, but disregard the e-commerce system application. Moreover, 36.70 % artisans do not know at all with ICT. For the familiar one, two categories are made, which are simple use and very simple use of e-commerce system. The considered strategy is the improvement e-literacy for kripik tempe artisans mediated by the related agencies.

**Keywords:** e-commerce, small-medium enterprises, competitive global

## 1. Introduction

The small-medium enterprises are the backbone of a nation's economic and industrial growth [18]. Almost 90% of worldwide businesses are afforded through The Small-Medium Enterprises contribution [7]. Many countries favorably appreciate the presence of Small-Medium Enterprises. Three reasons lie behind the establishment and development of the Small-Medium Enterprises : (1) it is a better performance to produce a productive workforce, (2) its increased productivity through investment and technological change, and (3) its flexibility compared to larger enterprises [2]. Indeed, Small-Medium Enterprises make a significant contribution and function for 50 % of workforce absorption of national absorption total [12].

Looking at the strategic role played by the Small-Medium Enterprises, it is wise to find it developed because of its more significant potential to stimulate public economic growth and to underlie the revenue source in favor of increased general welfare. One leading the Small-Medium Enterprises is the Kripik Tempe industry center in Kampung Sanan of Malang. More than 40 % of inhabitants in Kampung Sanan work as Kripik Tempe entrepreneurs. This profession has been recognized throughout the years and for some generations. Of 40 % of citizens with a job as Kripik Teentrepreneursneur, 80.78 % work in micro-enterprises. At the same time, the rest may as small enterprises are classified but with an annual return of 411,710,526 rupiahs.

Internal and external problems challenge Small- Medium Enterprises [4]. The internal issues involve capital limits, lack of human resources, weak business networks, and low market penetration capability. The apparent difficulties include a less conducive business climate, limited business structure, and infrastructure, the implication of local autonomy, free trade, short lifetime product characteristics, and limited market access. [14] examines other problems dealt with by Small-Medium Enterprises, such as limited access to capital, technology, information, market and marketing, human resource professionals, and company management. One major problem Kmajorpe entrepreneur faces in Kampung Sanan of Malang is a marketing problem.

For a critical role played by the Small-Medium Enterprises for the improvement of public welfare and national economic growth, a higher priority must be given to the Small-Medium Enterprises to empower their global competitive capability. In this information era, the e-commerce system is helpful for Small-Medium Enterprises' growth and development is considered [15]. Information and communication technology (ICT) is the primary device for an e-commerce system, but ICT development can change individual or organizational behaviors. ICT modifies the traditional business model into the modern one in an organization.

According to [8], Small-Medium Enterprises must use ICT based on the Small-Medium Enterprises level. Otherwise, Small-Medium Enterprises may be weak compared to large companies in terms of marketing, trading, managerial skill, etc. The review by [15] shows that the critical driver of using the e-commerce system in SmMedium Enterprises is the increased capability to obtain quick feedback from a customer and cost-saving and marketing extension. In t The e-commerce system allows small works to penetrate domestic or global markets in the marketing context questions, however, arrive: (1) whether the Kripik Tempe entrepreneur in Kampung Sanan of Malang has understanding and awareneofith the e-commerce system?; (2)



if yes, how far is the e-commerce system implemented?; (3) what support or constrain the e-commerce system's application system, and (4) what strategy for e-commerce system is applied. Therefore, the paper attempts to identify and review these questions.

## **2. The Small-Medium Enterprises In Indonesia**

### *2.1. The Definition And Function Of State-Owned Enterprises*

In under [20], some definitions of Indonesia the Small-Medium Enterprises have been given. Traditional small enterprises are those with simple production tools that, through generations, are inherited. Micro enterprises are the productive works who whondwhich individuality agencies belong. Meanwhile, state-owned enterprises represent self-support prodeffectivenomic works, conducted by indiviindividualsency but not a subsidiary. Concerning the decree made by Kantor Kementerian Koperasi and the Small-Medium Enterprises, small enterprises will be the business entity with a maximum net wealth of 200 million rupiahs, land and building excluded. Medium enterprises are state-owned business entities with more than 200 million in et wealth.

In Indonesia, Small-Medium Enterprises play some roles. These are (1) the primary contributor to economic activity, with 99.99 % of company total being the Small-Medium Enterprises, 99.94 % of workers are working in the Small-Medium Enterprises sector, and 59.36 % of GDP by the small-medium enterprise's sector is given; (2) the attractive driver of work opportunity; (3) key holder of local economic development; (4) its capability to create a new market with technological innovation; (5) giving a contribution to the international payment balance sheet [6]. The Laboratory of Faculty of Economic research, Bandung University of Padjajaran, indicates that 99 % of collective works in the small-medium enterpriseS can accommodate 88.3 % of all Indonesian workforces. This 99 % figure covers many work fields, such as 57.92 % for agriculture, 24.26 % for trade, 7 % for the processing industry, and 5 % for the service sector. During the crisis, small-medium enterprises proved themselves the bearer of Indonesia's economic power. History admits that the nations with vast populations, like China and India, have their main economic power based on the small-medium enterprises and public economics.

### *2.2. The Development and Application of Information And Communication Technology In The Small-Medium Entreprises*

Referring to [20] states that the development of the Small- Medium Enterprises on production, marketing, human resource, and technology are focused. Refer to [4] proposes that the product of the Small- Medium Enterprises must conform to some issues, such as the assurance of favorable business climate, capital aid, business protection, partnership, training, association empowerment, promise delivery, technological application, consultant service, marketing aid, and operational business management. [14] suggests developing the Small- Medium Enterprises through a relational marketing network. This relational marketing aims at building an excellent relationship with the customer. Some considerations remain behind this, such as 1) customers' different purchasing behavior, stricter competition, and more advanced technological progress; (2) marketing to more critical customers who are dynamic, with other demands and unpredicted interests; and (3) to retain the existing customer which

is more important and cheaper than looking for new customer.

One strategic step for Small-Medium Enterprises development is applying ICT as the primary device for constructing an e-commerce system. ICT alshabecomeomes a strategic weapon for business [5]. However, the use of ICT in Small-Medium Enterprises tends only to emphasize improving speed and efficiency. At the same time, the higher company alreis ady concerned with the progress of management structure and decision-making delegation. Three main functions of ICT are found in the Small-Medium Enterprises business process [13], i.e. (1) communication medium, ICT is used as the communication for any parties; (2) promotion medium, ICT is used as the promotional tool for good or service offered by the Small-Medium Enterprises; and (3) research media. ICT for the Small- Medium Enterprises conducting research and a comparison is also functional. Small-Medium Enterprises, therefore, should be able to use ICT in research to acknowledge how far the super product priority over the rivals and to identify what the competitors do.

### **3. The Scope Of E-Commerce System**

#### **3.1. The Definition And Type Of E-Commerce**

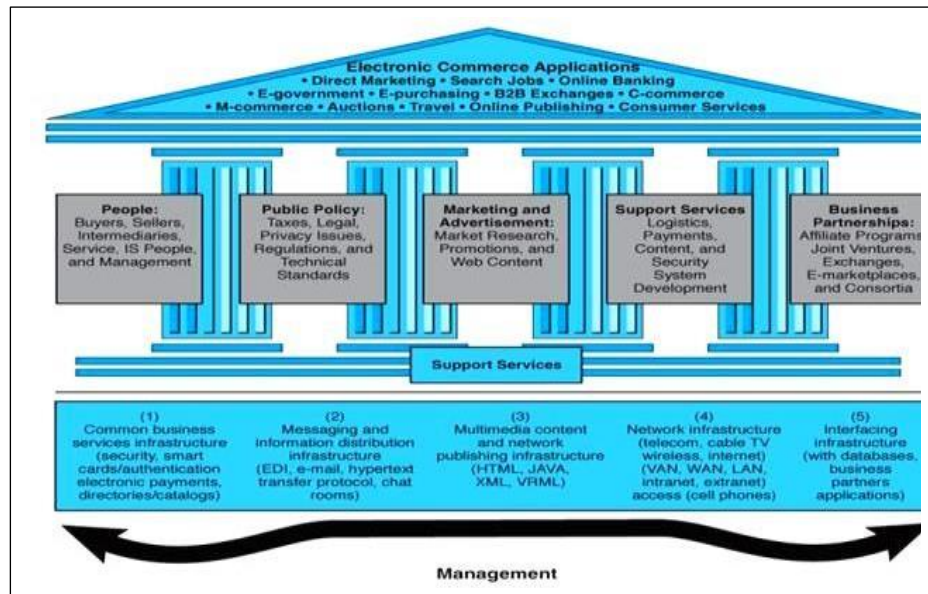
The development and growth of ICTs and the internet can boost business systems electronically, one of which is e-commerce systems. E-commerce is a new concept, which the process described as the process of buying and selling goods and services through a website system (www). [19] defines e-commerce as a thing selling, transferring, serving, or exchanging products, services, and information through a computer network that has an internet network. Meanwhile, if referring to other sources, e-commerce is a system for buying and selling products or services by business organizations and customers through the internet. E-commerce deals with sales, advertising, and ordering internet-based produced cts. Some meanings of e-commerce namely: (1) as a communication tool; (2) as a means to buy and sell products, services, and other information; (3) runs business processes electronically, replacing physical business processes; (4) as tools to reduce service oras operating costs and improve product quality; (5) business collaboration media; and (6) the media are seeking information, making transactions, and collaborating.

Refer to [8], e-commerce has eight characteristics, which are (1) *business-to-business* (B2C), where the seller and buyer are business organizations; (2) *Collaborative Commerce (e-commerce)*, where business partners (more than buying and selling) have been worked electronically in higher frequency based on business chain value; (3) *business-to-customers* (B2C), where the seller is organization, and the buyer is individual; (4) *consumer-to-customer* (C2C), where individual sells product or service to another individual; (5) *business-to-business-to-consumer*, where a business sells to business organization, but the delivery is for individual; (6) *consumer-to-business* (C2B), where the consumer becomes the supplier to meet and to provide the product or service demanded by customer; (7) *intra-business (Intra- organizational) commerce*, in which the application of e-commerce system is internally used to improve the operation; and (8) *government-to-citizens* (G2C) and to Other, where the government delivers the service to the citizens through e-commerce [8]. Besides, the government can also have business with other governments (G2G) or with a business organization (G2B).

#### **3.2. The Scope of e-Commerce**



Having business conduct through an e-commerce system is not merely using ICT and the internet. New network info involves supporting factors. Refer to [19] call these factors pillars. Five pillars are proposed, i.e., human resourseslycy, marketing, advertising, service support, and business cooperation. The relationship between the five pillars is shown in the following figure.



Source: from [19]

Figure 1. The Relationship Between Pillars Supporting e-Commerce System

#### 4. Research Method

This study aims to determine the understanding and awareness of Kripik Tempe entrepreneurs in Kampung Sanan of Malang about implementing e-commerce systems, measure the extent to which e-commerce systems are used in their business, and examine the supporting and barriers factors the implementation of e-commerce systems.

This research uses a quantitative research paradigm with a case study approach. Data collection techniques using surveys, interviews, and observation of e-commerce systems in the Tempe Kripik industry environment in Kampung Sanan of Malang.

The research instrument is a questionnaire and the researcher itself. To strengthen the survey data, the researchers interviewed Kripik Tempe entrepreneur in Kampung Sanan of Malang, using the FGD (focus group discussion) method. Technic data analysis this research uses descriptive quantitative data and Content Analysis for qualitative data.

#### 5. Result And Discussion

##### 5.1. The Profile of Kripik Tempe Industry Center In Kampung Sanan of Malang.

Kritik Tempe industry centers in Malang are 282 people. They are in RW 15 by 65.25% and in RW 16 by 34.75%. Sales turnover ranges from 37 million to 1.8 billion rupiahs

per year. Based on the results of data analysis, sales turnover of more than Rp 100 million per year was 31.91%, sales turnover of Rp 100-500 million per year was 62.06%, sales turnover of Rp 500 million - 1 billion was 3.55%, and more than Rp. 1 billion as much as 2.48%. As for the classification of business types, Kripik Tempe industry centers in Malang is 80.50%, including Micro businesses, and 19.50% in Small companies.

### *5.2. Entrepreneurs' Understanding of Kripik Tempe Entrepreneur about e-commerce Systems*

Based on the analysis of research data, the understanding of Kripik Tempe entrepreneurs in Kampung Sanan of Malang about the e-commerce system into three groups : (1) 23.82 % of them are familiar with or understand the role and application of ICT. The used type of e-commerce system is B-C (business-to-customer) and B- B (business-to-business); (2) 39.48% of Kripik Tempe entrepreneurs already know and use ICT and the internet but have not utilized it in the form of an e-commerce system. ICT is still for operational calculation aids. This second group is in line with previous studies [1] and [15]. This group has realized the importance of ICTs in developing their businesses. Some reasons for not using an e-commerce system, namely: do not understand how to use e-commerce systems, do not have the idea of using e-commerce systems to support their business, and there is no desire to use e-commerce systems to improve their business; and 36.70% of Kripik Tempe entrepreneurs in running their business are done traditionally and do not yet recognize the role and function of ICT.

Referring to [21], understanding ICT or "e-literacy" is an intellectual ability to use and apply ICT in complex and sustainable situations and understand the consequences. This e-literacy includes academic skills, basic concepts, and contemporary skills about ICT in business. While referring to the P-CMM model, e-literacy consists of six levels, namely level 0 to level 5.

Based on the theory, Kripik Tempe entrepreneurs in Kampung Sanan of Malang are at: (1) level 5, ICT is integrated with daily business activities, and information is an essential part of business operations); (2) level 1, Kripik Tempe entrepreneurs already have ICT knowledge, but ICT has not been integrated with its business operations; and (3) level 0, Kripik Tempe entrepreneur does not have any ICT knowledge. Based on this analysis, Kripik Tempe entrepreneurs have not maximized using e-commerce systems [19]. Managers' perceptions influence the low utilization of e-commerce systems because ICTs have not been seen as an integral part of increasing competitive advantage [17].

### *5.3. e-Commerce in Kripik Tempe Entrepreneurs*

As many as 23.82% of Kripik Tempe entrepreneurs have understood and used e-commerce to support their businesses. They already have a web site as e-commerce, including: (1) <http://www.infojajan.com>; (2) <http://aneka.kripik.com>; (3) <http://www.seputarmalangraya.co.cc>; (4) <http://foursquare.com>; (5) <http://doyanmakan.com>; (6) <http://kripiktempemalang.com>; and (7) [www.facebook.com](http://www.facebook.com).

Based on the analysis results, this system is classified as B-C (business-to-customer) and B-B (business-to-business) types [19]. With this system, customers can take advantage, including (1) reducing the marketing chain; (2) marketing can be



done on a national and global scale; (3) speed of marketing time; (4) increasing relations with consumers; (5) business operations are conducted 24 hours a day; (6) easy, efficient and effective transactions; (7) more product choices; (8) availability and a lot of information as a basis for making decisions. This finding is in line with the results of the research of [15], [10], [9], [11].

#### *5.4. The Constraining Factors for Implementation of e-Commerce systems*

Based on the study results, inhibiting factors for Kripik Tempe entrepreneurs in using e-commerce systems, namely (1) lack of human resources who have ICT competencies; (2) Kripik Tempe entrepreneurs do not yet have the concept or technical knowledge and capability regarding e-commerce. In general, they develop ICT-based business models based on external factors.

[19] states that implementing e-commerce system applications must be supported by five pillars: human, public policy, marketing, advertising, service support, and business cooperation. The five pillars must be based on ICT infrastructure knowledge, including service infrastructure, information distribution infrastructure, publication network infrastructure, content management, interface infrastructure, and database management.

#### *5.5. E-Commerce Implementation Strategy*

Based on the study results, Kripik Tempe entrepreneurs in Kampung Sanan of Malang are still low in implementing e-commerce application systems. Although a small percentage of them already use e-commerce. They have instant knowledge about e-commerce systems — the minimum strategy in implementing an e-commerce system for Kripik Tempe entrepreneurs, namely, the technical process. Strategic technical intends to provide e-commerce understanding, knowledge, skills, and management.

Based on the research results, Kripik Tempe entrepreneurs hope that there are government agencies providing training in the implementation of e-commerce. They hope to have e-literacy about e-commerce to support their business. The application of e-commerce systems involves software and hardware architectures aligned with ICT developments and trends.

### **6. Conclusion**

Based on the results of the study, the implementation of the e-commerce system application for Kripik Tempe entrepreneurs at Kampung Sanan of Malang can be concluded:

1. Most Kripik Tempe entrepreneurs do not yet understand the role and function of ICT.
2. Some of them have already implemented an e-commerce system. The implementation of this e-commerce system is carried out very simply. The simple performance is Kripik Tempe entrepreneurs have already implemented an e-commerce system with B-C and B-B categories. Still, they are not supported by proper e-commerce management, and they lack human resources who have competency in technical and concept e-commerce systems. Meanwhile, the implementation of e-commerce is straightforward; namely, Kripik Tempe entrepreneurs are still using social media ([www.facebook.com](http://www.facebook.com)).
3. The main obstacle for Kripik Tempe entrepreneurs in implementing e-commerce systems is the low level of e-literacy.
4. To optimize the implementation of e-commerce in Kripik Tempe entrepreneur,

which is a technical strategy with the help of government agencies.

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