Media Literacy and Rural Women Entrepreneurship: Experience from Japan and Turkey

Hiroko Kawamorita 1, Noriyuki Takahashi 2 and Kursat Demiryurek 3

1 Department of Insurance and Actuarial Sciences, Ondokuz Mayis University, Samsun, Turkey. Email: hiroko.kawamorita@gmail.com
2 Department of Economics, Musashi University, Tokyo, Japan. Email: noriyuki@cc.musashi.ac.jp
3 Department of Agricultural Economics, Ondokuz Mayis University, Samsun, Turkey. Email: kdemiryurek@gmail.com

Abstract:

Purpose: This article addresses the economic aspect of media literacy by studying how media literacy impacts entrepreneurial activities among rural women. The theoretical framework of this research is information asymmetry, and by comparing rural women entrepreneurship in Japan and Turkey, studies the effect of media on entrepreneurship.

Methodology: The study uses bibliographic analysis on the selected articles and reports between 2010 and 2020 to recognize the academic record of the subject. Then, by the use of case studies to compare Japan and Turkey, studies the relevant policies and activities implemented in both countries.

Findings/Contribution: The findings show that media literacy positively impacts entrepreneurship among women in rural areas by increasing information asymmetry for the whom with increased access to media and can analyse the media content and news for a better understanding of market needs and response to the opportunities. This comparative study sheds new light on the economic dimension of media literacy and how rural women are adapted to utilise the technology to develop their entrepreneurial capacity in two different socio-economic status Asian countries.

Value/Originality: Due to the scarcity of literature in economic aspects of media literacy, this study presents a contribution to future research.

Keywords: Media and Entrepreneurship; Female Entrepreneurship; Media Literacy; Rural Entrepreneurship; Information Asymmetry; Capacity Building.
1. Introduction

Due to the increasing presence of media in our daily lives, we receive numerous and various messages from different channels, almost every hour. Our ability to analyse, interpret, and validate the receiving messages is called media literacy (Ciurel, 2016). The concept of media literacy has been discussed by both academic and non-academic scholars for many decades, and this attention has been raised recently. The main body of research on media literacy has focused on the ability to recognise valuable content from disinformation, fake information, and propaganda (Khriyenko, 2018).

While more attention has been drawn to the dimensions of Media Literacy (Rasi, Vuojarvi & Rivinen, 2020), there is another aspect of media literacy that is worth studying and mostly neglected; it is the economic aspect of media literacy and how it affects the ability of media consumers to better understand the markets and to act accordingly. This aspect connects media with entrepreneurship, which has been studied slightly in some previous researches. Hindle and Klyver (2007) explored the relationship between media coverage and the level of participation in entrepreneurship. They showed that there is a positive relationship between the volume of entrepreneurship media stories and a nation’s volume of people running a young business (businesses that are between 3 to 42 months old). These studies had a strong positive association with opportunity oriented operational value of young businesses. Kadam and Ayarekar (2014) studied the impact of social media on entrepreneurship tendency and performance of SMEs. In a similar way, they concluded that Social Media tools help entrepreneurs to improve operational as well as entrepreneurial performance as the use of such tools influence the purchase decision of consumers. Jagongo v Kinyua (2013) studied the impact of social media on entrepreneurship growth by presenting their research finding that such tools offer greater market accessibility and Customer Relationship Management. It is also noted that social media allows businesses to communicate with customers efficiently with minimum cost, which lead SMEs to improve their economic performance.

Over the years, female entrepreneurship has attracted the attention of many researchers, both in developed and developing countries (Abaci, Demiryurek, Emir, & Yildirim, 2015; Alston, 2003; Dastourian, Kawamorita Kesim, Seyyed Amiri, & Moradi, 2017; Fitz-Koch, Nordqvist, Carter, & Hunter, 2018; Khan, 2020; Kurtege Sefer, 2020; Oruc, 2015). Women entrepreneurs are considered as an essential asset for economic development worldwide, contributing significantly to society. According to the Global Entrepreneurship Monitor (GEM) 2018/2019 Women’s Entrepreneurship Report (Bosma & Kelley, 2019), the gender gap on opportunity perceptions is improving every year between women (42.1%) and men (47.3%). Rural women play an essential role in local entrepreneurship as they are the ones initiating and developing new business activities. For instance, Bock (2004) presented her two research projects implemented in the year between 1995 and 2001 for Dutch rural women and noted that typically, rural women start their initiatives by fitting their new activities combining entrepreneurship with existing rural and family duties. Bock argues that in order to reach and support female rural entrepreneurs, policymakers should take the specific character and dynamic of women’s approach to business management into account and concluded that women are not less successful entrepreneurs compared to men, though women’s motivations, goals, and aspirations are different from mens. Therefore, women’s success and performance should be evaluated differently. Based on her research, agriculture is an ideal ground for exploring and measuring the impact of media literacy on women entrepreneurship.

The role of media has been acknowledged to accelerate women’s empowerment (Narayana & Ahamad, 2017). They show that media influence the behavior of society, and it can be utilized to create a better image and support women entrepreneurs facing challenges by disseminating success stories and providing support. As a result, media promote access of women entrepreneurs to education, which results in enhancing their media literacy to increase information asymmetry. Some studies reveal that media also positively affect women entrepreneurship by the representation of female entrepreneurs (Eikhof, Summers, & Carter, 2013). They analyse women’s lifestyle magazines,
which presented the female entrepreneurial activity and work, as the image of a highly desirable and satisfying work-life style. The impact of such media influences women’s real-life practices, which creates a positive image, and entrepreneurship is seen as an aspiration.

In addition to media, many authors also have examined the potential of social media to support women entrepreneurship and its vital role in promoting entrepreneurial values and images (Genç & Öksüz, 2015; Hossain & Rahman, 2018; Landig, 2011; Melissa, Hamidati, Saraswati, & Flor, 2013). The use of social media and other digital tools are the key for disadvantaged groups such as women in rural areas, who are considered to be low status and receiving limited resources. Hossain and Rahman (2018) presented the relationship between social media and entrepreneurial opportunities for rural women entrepreneurs in Bangladesh, which demonstrated the use of social media to open up to business opportunities. Although the relationship between product improvement/development and entrepreneurial opportunity has not been proven in the reviewed literature, the use of social media has several advantages. First of all, it does not require a high level of technological literacy. It needs relatively low investment and operating costs. Furthermore, most of all, it provides flexibility for rural women to work from home and to manage both professional and family duties. Conversely, Genç and Öksüz (2015) revealed challenges women entrepreneurs are facing by the use of social media due to the imitation of work, professional dissatisfaction, difficulty in identifying the specific target audience, wider spread-out of market share, and unfair competition.

In connecting the important subjects of media literacy and female entrepreneurship, this article attempts to investigate the relationship between media literacy and women entrepreneurs by focusing on the agriculture sector in rural areas by comparing the Japanese and Turkish contexts. By reviewing relevant selected studies and study of selected cases, the authors try to answer the following questions, (1) What are the dimensions and the effect on the use of media literacy among rural women entrepreneurs, (2) What kind of approaches are applied by rural women entrepreneurs to foster media literacy to develop their entrepreneurial capacity?

To answer the above questions, a comparative case study is considered. The countries chosen for this study are Japan and Turkey, both located in Asia, one far-east and far-left; with different socio-economic status. Despite this economic difference (Japan is an advanced economy within OECD, and Turkey is an emerging economy), rankings in terms of women's issues are very similar. According to the GEM report, the 2020 gender gap for Turkey is 130/153, while that for Japan is 121/153 (World Economic Forum, 2019). Japan’s economic gender gap has narrowed somewhat, but it is still far behind among all advanced economies. Meanwhile, Turkey records progress on closing the gender gap in estimated earned income and specifically for professional and technical workers. However, its gender gap widens for wage equality and female members of parliament. Even though both Japan and Turkey are countries leading Asia for modernisation, they both still struggle with the lower status of women. Therefore, this study is expected to serve gender equality and women empowerment, besides contributing to the field of media and entrepreneurship.

2. Literature Review

2.1 Media Literacy and Entrepreneurship

The concept of media literacy is a widely studied topic for several decades, especially in western countries such as in the United Kingdom, the United States, and Europe. Traditionally it is defined as the acceptance, analysis, composition, evaluation, and reformation of the various content or knowledge taken from the media related to audio-visual (television, radio, newspapers, and magazines, etc.) media (Christ & Potter, 1998; Potter, 2013), the understanding, comprehension, critique (Higgins & Begoray, 2012; Plester & Wood, 2009) and creation of media materials (Livingstone, 2008). Then, more recently and in line with the fast development of technology and communication, digital television, mobile communications, and social media attracted the attention
of many scholars, and such digital technology-related topics became the centre of discussion with more emphasis on the access, identification, location, evaluation, and use of information materials.

As noted by many scholars (Christ & Potter, 1998; Livingstone, 2004; Sonia Livingstone and Vander, 2010), Media literacy is the ability to access information effectively, analyse, evaluate and create media in a variety of forms. These characteristics are in common with the entrepreneurial activities towards business success. The common ground of Media and Entrepreneurship has been acknowledged by many authors. Hang presents a linkage between media and entrepreneurship by highlighting that “the relationship between media and entrepreneurship is reciprocal, with entrepreneurship affecting media business, and at the same time, media promoting entrepreneurial phenomena and practices” (2020: 200). Hoag (2008) conducted a macro-level analysis by measuring media entrepreneurship in the United States. She says that entrepreneurship creates independent media voices towards the understanding of its impact on innovation and media diversity. Achtenhagen (2008) says that media entrepreneurship creates a potential impact on changing society. She presented the entrepreneurial magazine company acting on opportunities by expanding their business, developing a product and services. Salamzadeh and Markovic (2018) highlighted that media entrepreneurship is about applying entrepreneurial theories and practices in media firms, which is an emerging field of study worldwide, especially in Iran, it is a potential market. They also suggested future research to measure the impact on media start-ups. Flourishing the studies in the subject of media entrepreneurship is a product of such tended connection of media and entrepreneurship. They acknowledge that media is a ground for entrepreneurship, as well as an antecedent of entrepreneurship by providing the required knowledge, skill, insight, and information for doing entrepreneurship (Hang, 2020; Khajeheian, 2019; Roshandel Arbatani, Kawamorita, Ghanbary & Ebrahimi, 2019; Khajeheian, 2017; Achtenhagen, 2008; Hoag, 2008; Hang & Van Weezel, 2007).

Most of the seminal works in entrepreneurship point to the role of information advantage for generating entrepreneurial opportunities (Hayek, 1952; Kirzner,1973). Morris & James (2017) highlighted the positive effect of media literacy and entrepreneurship by showing that a better knowledge of media helps people to create more value. Hossain and Rahman (2018) identified the factors influencing the use of social media by women entrepreneurs for creating entrepreneurial opportunities. Their findings show that technical adaptability, work-life balance, network building, access to information, and cost efficiency have a significant influence on the entrepreneurial opportunity.

2.2 Rural Women Entrepreneurship in Japan

Traditionally, the role of women in society was to look after the children to take care of the household, and there is no exception in Japan and Turkey. Beqo and Gehrels (2014) noted that the situation has been improving according to the rapidly changing environment, and fortunately, this is no longer the sole case, and the same situation applies in the field of agriculture and rural areas. As a result, more jobs and opportunities became available to women, especially at the beginning of the 20th century.

Shinato, Kamei, and Dana (2013) noted that women entrepreneurs are now seen as the critical drivers in innovative and sustainable socio-economic development worldwide, as they are highly educated with technology compared to the male, as well as having an impact on creating jobs for others (Kamberidou, 2012). Women represented over half of Japan’s agricultural population, specifically in small family firms until 2010. This is a result of the second Basic Law on Food, Agriculture, and Rural Areas introduced over 20 years ago, promoting the involvement of women in leadership positions in agriculture. It was one of the critical policies announced as a part of the sustainable agricultural development initiative. Alongside this favourable law to women entrepreneurs, the government introduced initiatives to support the promotion of gender equality in
agriculture and in rural communities, such as providing support for innovative agri-businesses processes and the promotion of women for senior positions. Rosenbluth (2007) published a book on the development process and the experience of women in Japan and the globalisation effects on its economy. Despite the considerable involvement of women entrepreneurs in related activities, their status has not been reflected. According to the report “Number of Women Farmers in Japan Continues to Decline” by the Japanese Ministry of Agriculture, Forestry and Fisheries presented by United States Department of Agriculture, the number of women in agriculture started to decline in 2010 (Satake, 2020). In 2014, the Japanese Prime Minister, Mr. Shinzo Abe, introduced the empowerment of women in the workplace as one of the economic reform policies. This was to target to raise the proportion of women in leadership positions to 30 percent by 2020. In the same period, the Government of Japan has announced the Fourth Basic Plan for Gender Equality in 2015, promoting women’s participation in agricultural management. Along with these policy introductions, SMEs started to take initiatives to promote media usage among women entrepreneurs, as explained in the case study in Japan.

2.3 Rural Women Entrepreneurship in Turkey

According to the Turkish Statistical Institute (TurkStat, 2018), agriculture is the second-largest sector of employment with more than 5.5 million people, and it is the largest sector of employment for women, producing about half of the agricultural goods in Turkey. Women’s contribution to agriculture became visible in the mid-1980s. However, women were less visible in rural areas compared to men. The country introduced national action plans and policies towards gender inequality, and Turkey is making progress in easing the women’s leadership initiatives.

The first National Action Plan on Gender Equality was introduced in 1996, specifically addressing the problems of rural women. Strategy Paper and Action Plan for Women’s Empowerment (2018-2023) is the third action plan providing information about the challenges for rural women, such as the lack of access to education, health services, and social security. This action plan provides solutions for women cooperatives, providing vocational courses to rural women, supporting women’s entrepreneurship in agriculture-related sectors. Several special projects were implemented to reach out to rural women, and one of the first and most widely applied projects (in 19 provinces) was called Women Farmers Compete, implemented in 2000 funded by the DPT (Ministry of Development, State Planning Office) in collaboration with TRT (State Radio and Television). Then besides, “The National Action Plan on the Empowerment of Rural Women (2012-2016)” was introduced within the framework mentioned, including improving the status of rural women and promoting the gender sensitivity of the agricultural sector. The Ministry of Agriculture and Forestry (MAF) is the central government institution responsible for performing agricultural extension activities with stakeholders (farmers, associations, agricultural cooperatives, charities, universities) by providing support for marketing, training, and extension activities with media use in Turkey. The Rural Women Unit is also allocated at MAF, which provides information about agricultural production methods, home economics, and handicraft courses for rural women, as well as organising and implementing in-service training for all ministry staff. MAF implements projects to strengthen the national extension system to be able to provide efficient advisory support to farmers and rural communities, to increase productivity and food security of rural communities. The importance of providing accessible agricultural extension services for women is highlighted in the report of the National Agricultural Extension Strategy prepared by FAO (Talug et al., 2019). Despite the high employment rate of women in the agricultural sector in Turkey, as mentioned above, women are categorised as self-employed but, in fact, are not paid for their work (Talug et al., 2019). For example, 1.8 million women are working as an unregistered family worker (TurkStat, 2018).
2.4 Theoretical framework

The theoretical framework of this research is based on information asymmetry, which has been one of the central issues in entrepreneurial activities and implies on information advantage of entrepreneurs over other actors that lead to entrepreneurial activities to get benefit from markets (Blok, 2018). Barbaroux (2014) illustrates the dual character of this concept (to generate market failures and gives birth to entrepreneurial opportunities) and its impact on how innovations are managed under asymmetric information. He argues that asymmetric information is critically related to the level of entrepreneurial activity in the economy. On the contrary, Rofiah et al. (2019) shows that media literacy provides more knowledge about what is needed in the market and better opportunity identification and results in more interest in entrepreneurship. By use of information asymmetry due to media literacy (Başlar, 2011), rural women could better understand the market need and act upon efficiently as it provides new marketing opportunities to engage in direct selling and micro branding in real-time (Morris & James, 2017). Especially, it is noted that being selective with the message is one of the critical issues in social media as it significantly affects the decision-making process. Their study highlighted insights into the current low uptake of social media in agriculture.

Media influence the behavior of society, and it can be utilized to create a better image and support women entrepreneurs facing challenges by disseminating success stories and providing support. As a result, media promote access of women entrepreneurs to education, which results in enhancing their media literacy to increase information asymmetry. It is a condition where one party has more or better information than another, which creates challenges and opportunities. Information asymmetry is the central element of many theories in different management research, including entrepreneurship (Drucker, 1985; Shane & Eckhardt, 2003). Bergh, Ketchen, Orlandi, Heugens, and Boyd (2019) noted that the information asymmetry concept is widely applied in management research, within leading theories on organisations. In their study, 223 relevant articles were reviewed, and a framework to assess information asymmetry research was developed. Therefore, this study follows the research opportunity in the entrepreneurship subfield to examine the role of information asymmetry in pursuing an entrepreneurial orientation by observational and qualitative techniques, as highlighted in their study. Information asymmetry exists in most entrepreneurial situations as the entrepreneurs who created the products or services always know better about the business and the related information than their key stakeholders. Similarly, Dehlen, Zellweger, Kammerlander, and Halter (2014) stressed the importance examine the role of information asymmetry in entrepreneurship. Their study was one of the first research conducted by the quantitative method.

3. Materials and Methods

The current study is divided into two separate parts. The first part is a systematic review of the previous works on the subject. The second part is a study of selected cases from Japan and Turkey. The first part reflects the state of the arts in the study of media and women entrepreneurship and shows researchers how these subjects are deeply investigated. Hang (2020) used content analysis in her studies to extract the information from each publication (Krippendorff, 1986; Walliman, 2017). However, in this study, the authors utilised the Visualising scientific landscapes software tool (VOS reviewer) while following the same systematic literature review approach.

Based on experience from previous studies in the literature review, the scope of the study was decided as below supplementary source. Four listed criteria have been taken into consideration when searching for the relevant articles, as shown in Table 1, and among them, rural women in agriculture and its related policies and activities were considered as the most relevant information for this study. Academic Search Elite (EBSCO), JSTOR and ABI/INFORM (Proquest) (Hansen & Machin, 2013; Tyler et al., 2008; Piotrowski & Armstrong, 2005; Hang, 2020) and web of science were the main four databases used in addition to other academic search engines such as google scholar. All manuscripts
were listed after deleting duplicates and excluding irrelevant items. Finally, 63 were identified as relevant manuscripts, and all were gathered in EndNote for reviewing. Then the information was extracted as a Reference Manager (.RIS) file to be used in VOS reviewer for visualisation of data as shown in Figures 1 & 2. The overlay visualisation and network visualisation are presented by using the VOS viewer software as shown in Figure 1 (based on bibliographic data) and 2 (based on text data) to support co-occurrence network analysis of the distribution of topics of media literacy and women entrepreneurship research and all entrepreneurial activities in the related sector.

The second part is a study of selected cases from Japan and Turkey, which is presented in the results section. The holistic single case study method was applied, and the selection criteria for choosing the case studies were 1) the relevance to the research topic and 2) the fit with the research questions. The case studies presented by both countries are the ones important/unique and specific to their countries, elderly women, and “Tsuma” in Japan and women’s empowerment after the crises in Turkey. More specifically, the ethnographic research method was applied for this group research in Japan and in Turkey to obtain detailed information about activities to understand phenomena in a specific context. Newth (2018) highlighted that ethnographic approaches are powerful methods that can be obtained from experience to uncover the in-depth information to illustrate the differences between intentions, beliefs, and attitudes by a narrative-driven expression in a particular social setting. Similarly, Watson (2011) noted as “draws upon the close observation of and involvement with people in a particular social setting and relates the words spoken and the practices observed or experienced to the overall cultural framework within which they occurred” (Watson, 2011: 205-206). Such collected contextualised data provide different interpretations and explanations of entrepreneurial phenomena and to illuminate the “black box” of entrepreneurship (Zahra, Wright, & Abdelgawad, 2014).

The main reasons why these two cases were selected are; Firstly, both cases were successful by making use of a support system from the “Irodori” project in Japan and the Women Entrepreneurs Association of Turkey (KAGIDER) in Turkey. Secondly, both cases are empowered by access to media contents from information technology about the products that the market demand. Thirdly, both cases consist of small but many women entrepreneurs. That means both cases are the stories about area-wide movement.

Table 1: List of Criteria applied in this study

<table>
<thead>
<tr>
<th>Criteria</th>
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</thead>
<tbody>
<tr>
<td><strong>1</strong> Time period</td>
<td>2000-2020</td>
</tr>
<tr>
<td><strong>2</strong> Keywords</td>
<td></td>
</tr>
<tr>
<td>Entrepreneurship</td>
<td>entrepreneur*, innovation, new venture, opportunity*, venture*, start-up, family business</td>
</tr>
<tr>
<td>Media</td>
<td>media, newspaper, radio, broadcast, film, music, advertisement, new media, internet/mobile media, social media, news production</td>
</tr>
<tr>
<td>Matching Keywords</td>
<td>entrepreneur AND media, entrepreneurship AND innovation, family business AND media, etc</td>
</tr>
<tr>
<td><strong>3</strong> Manuscript type</td>
<td>a conceptual, empirical, methodological, or meta-analytical/review nature, Editorials, case studies, or comments, journalists’ articles, reports, projects</td>
</tr>
<tr>
<td><strong>4</strong> Language</td>
<td>English</td>
</tr>
</tbody>
</table>
Figure 1: Overlay Visualization (one occurrence for keyword) co-occurrence map based on text data

Table 2: Cluster table identified based on key terms shown in Figure 1

<table>
<thead>
<tr>
<th>Cluster 1</th>
<th>Cluster 2</th>
<th>Cluster 3</th>
<th>Cluster 4</th>
<th>Cluster 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Media Technical Issues</td>
<td>Media and Entrepreneurship</td>
<td>Media Literacy and education</td>
<td>Content</td>
<td>Social Media</td>
</tr>
<tr>
<td>5.Media Device</td>
<td></td>
<td></td>
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</tbody>
</table>
Figure 2: Network Visualization (three occurrence for keyword) co-occurrence map based on text data

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Category</th>
<th>Terms</th>
</tr>
</thead>
</table>
| Cluster 1     | Media and Rural Women             | 1. Agricultural Entrepreneurship  
2. Case Study  
3. Education  
4. Female Entrepreneurship  
5. Project  
6. Rural Women  
7. Turkey  
8. Urban Area |
| Cluster 2     | Media Impact on Entrepreneurship  | 1. Entrepreneurial Orientation  
2. Innovation Media  
3. Media Entrepreneurship  
4. Women Entrepreneurship |
| Cluster 3     | Information Asymmetry             | 1. Ability  
2. Content  
3. Digital Media  
4. Literacy  
5. Information  
6. Asymmetry |
| Cluster 4     | Social Media for Business         | 1. Business  
2. Medium  
3. Us |
| Cluster 5     | Digital Transformation            | 1. Company  
2. Digitalization |
| Cluster 6     | Media and elder                  | 1. Media Literacy  
2. Old person |
| Cluster 7     | Media literacy and Entrepreneurial Opportunity | 1. Opportunity  
2. Social Network Cite |
4. Results

The number of studies related to theory development around media literacy and Entrepreneurship increased only after 2017. The visualisation maps shown in Figures 1 and 2 were created by the titles and abstracts, and "Innovation" and "Social Media" were the most studied concepts in the aspect of their relationships between media literacy and women entrepreneurship. The list of literature in this dataset only includes studies in women entrepreneurship to understand this specific area of research. The distance of terms on the above maps demonstrates an indication of the relatedness of the terms. The smaller distance between terms shows the more robust relationship between each other. Cluster 2 in Figure 2 indicates a set of items that are the media impact on entrepreneurship, which are strongly connected, such as entrepreneurial orientation (innovativeness, proactiveness, risk-taking) (Achtenhagen, 2020) and behavior. Figure 2: Cluster 1 is concentrated on media literacy and Women Entrepreneurship studies. Agricultural Entrepreneurship and advisory service, such as agricultural extension, are the important terms extracted and examined in the case study of Turkey in this study. The keywords in occurrences that appear at least three times in the dataset are considered in this map. Figure 2: Cluster 5 represents the area of competition and performance-related topics such as digitalisation in companies as part of innovation, which is connected to the area of economic development. Figure 2: Cluster 1 represents the role of rural women in the agriculture sector, which is linked to Cluster 4, which refers to the role of the media and the relationship between media usage and entrepreneurial activity.

4.1 Case Study from Japan: Elder Women Entrepreneurs in Rural Areas

Japan is a small country with an area of 377,900 km², less than half of Turkey’s area. However, Japan has 47 prefectures. Among them, there are metropolitan areas such as Tokyo and rural areas such as Hokkaido. In this paper, Tokyo, Chiba, Saitama, Kanagawa, Aichi, and Osaka are defined as metropolitan areas and the other 41 prefectures as rural areas for convenience (Figure 3).
The main reason why the authors divided Japan into two groups is that the levels of entrepreneurial activities and attitudes are different between metropolitan areas and rural areas. Japan is a country with a low TEA index among innovation-driven countries GEM citation. In addition, the Total early-stage Entrepreneurial Activity (TEA) rate for women is much lower than men. Moreover, when metropolitan and rural areas are compared, the female TEA in rural areas is lower than that in metropolitan areas. The same situation applies to the story about entrepreneurial attitudes as entrepreneurial activities (Figure 4).

There are many reasons why the levels of entrepreneurial activities and attitudes of women in rural areas are lower than those in metropolitan areas. Among them, the gap in IT literacy is one of the crucial factors. Figure 3 shows how different the penetration rate of the Internet is all over the prefectures of Japan. The data is not divided into male and female, but it shows that the penetration rate in metropolitan areas is higher than that in rural areas (Figure 5).

![Figure 4: The level of entrepreneurial activities and attitudes by gender and by area](image)

Source: Global Entrepreneurship Monitor (GEM) 2010-2018

Note: The data in this chart is aggregated for 9 years from 2010 to 2018

![Figure 5: The penetration rate of the Internet in Japan by prefecture (2019)](image)

Source: Ministry of Internal affairs and Communications
The low level of IT literacy is a severe problem for both entrepreneurial opportunities and capabilities. From this perspective, women in rural areas have some disadvantages when starting their own businesses.

However, there are exceptions. In this paper, the authors introduce the story about elderly women entrepreneurs at Kamikatsu village in the Tokushima prefecture. Kamikatsu is a small village in the middle of a mountainous area in the Tokushima Prefecture, Shikoku Island, in Western Japan. As of 2018, only 1,552 people live there, and 51.8% of the total were older than 65. It was a typical rural town with no competitive industries.

Like many rural areas, Kamikatsu had tried various revitalising projects just that failed. Nevertheless, after one man named Tomoji Yokoishi started a completely new, peculiar endeavour to sell “leaves” leveraging the power of elder women entrepreneurs, Kamikatsu has changed completely. The endeavour is called “Irodori,” a local-government affiliated enterprise that brings in about $2.6 million a year for a village with only 1,500 residents. In this project, elder women entrepreneurs played a leading role.

In Japan, leaves are indispensable to Japanese food, and such leaves are called tsuma, which means wife or a good partner to the main dish (Figure 6). Because Kamikatsu is located in a mountainous area, many leaves can be found around peoples’ homes very easily. Every morning Irodori company sends new information on what kinds of leaves are demanded that day to elder women entrepreneurs by the Internet. Then the women entrepreneurs rush into the order lists on the PC screen, and each woman entrepreneur seeks the most fitting order for her, and the deal is done by the rule of first come, first served.

![Figure 6: Tsuma (Leaves decorating Japanese dish)](http://flandre-magazine.com/2017/02/14/9232)

In the early stage of this project, elder women entrepreneurs sought the leaves that grow naturally around their home, but recently they strategically grow the leaves that can be sold at high prices or are demanded heavily. Some elder women entrepreneurs earn more than 100,000 US dollars per year. They did not even know how to boot up a PC before the Irodori project began. However, they have learned how to use a PC to make money, and now support the area that they live in.
4.2 Case Study from Turkey

In Turkey, the Ministry of Agriculture and Rural Affairs provides information related to agricultural production for rural women, followed by the Ministry of Education. Both public and private institutions such as the Directorate General on the Status and Problems of Women, Research and development centres at Higher Education Institutions, Turkish Women’s Solidarity Foundation, Cooperatives of Agricultural Production and Credit are offering extension activities for rural women under multiple projects. Along with the rapid expansion of information and communications technologies (ICTs) in developing countries, there was an urgent need for the extension field workers to access a wide range of sources of technical and market information, especially on pricing in real-time, which influences the opportunity to increase income, especially among small scales family-owned agricultural entrepreneurs (Rezaei-Moghaddam & Izadi, 2019). Although these supporting mechanisms are in place, just like in any other countries, fewer women are engaging in entrepreneurial activities in Turkey.

4.2.1 Nation-wide Project: Extensive Farmer Education (YAYÇEP)

One of the most successful projects through media was implemented over 10 years ago in Turkey (The World Bank Agriculture and Rural Development Discussion Paper 45) to respond to such urgent demand in relation to Media Development (mobile phones, SMS messages, social media, online databases as well as traditional Media) and the ability to access to the information electronically. In Turkey, agricultural radio and television programs have been broadcast since 1960. However, it was only after 1991 that the Extensive Farmer Education (YAYÇEP) was introduced through the audio-visual media. The project was developed and implemented in Turkey at a national level by multi actors, including the Ministry of Agricultural and Rural Affairs, the State Radio and Television Institution, Anadolu University, and the Ministry of Finance. This YAYÇEP project fully utilised both
traditional media (the print: newspaper, book, and magazine; audio-visual: radio, television, music, and advertisement) and new media (Internet, mobile and social media) as shown in table 2, resulting in reaching a large number of the target group, by overcoming challenges of limited education/training and lack of infrastructure specifically in rural areas. The project targeted both males and females, and there was no intention for enhancing the capacity of women specifically. Besides, distance learning education plays an essential role as a part of agricultural innovations and technology in Turkey.

Having accessible learning material online via social media platforms and television, as well as in printed form, encourages rural women entrepreneurs to accept the great opportunity towards modern technology and development. They are more likely to change their perception and attitude towards media use once experienced with a convenient and affordable education and training programme supported by multimedia. Demiryürek (2010) highlighted the successful use of the multimedia approach applied in the YAYÇEP project in Turkey, which demonstrated similar results as other projects implemented abroad. He confirmed that “The experience of various distance education projects for rural people all over the world shows that multiple media approach, which is the combination of television, printed materials and group discussion is more effective in changing rural people’s attitudes towards modern technology and development.” (2010: 641).

To sum up, television is still a popular medium for distance education, especially in rural areas in Turkey, as it is more accessible and reachable by more people. Hence, the support of regular extension services and field demonstrations are still necessary, and together with the use of the multiple media approach combining both traditional and new media would be the ideal method for a successful outcome. Some limitations were identified as a lack of monitoring and evaluation throughout the project (Demiryürek & Atsan, 2015).

The study presented recently by Gul and Demiryürek (2020) highlighted the necessity of traditional media and proved that it is the primary resource to reach the women entrepreneurs in rural areas in Turkey as they are in the disadvantaged group when considering the opportunity to access the new media. The research investigated the ICT uses of both males and females in rural and

| Table 4: The Extensive Farmer Education (YAYÇEP) |
|-----------------|-----------------|-----------------|
| **Phase**       | **1**           | **2**           |
| **Years**       | 1991 - 1997     | 1999 – 2009     |
| **Total Number of Television Programs Broadcasted** | 338 (30 minutes per session) | 253 |
| **Topics**      | Animal husbandry and breeding, crop production, plant protection, agricultural mechanisation, farmers’ organisation | Previous programmes were updated |
| **Supplementary Materials** | Agricultural manuals, related to the programmes, 800.000 books were printed and distributed to the participants | 488.952 new manuals related to these programmes have also distributed the manuals that became available for download / some programmes became available to watch on a web page |
| **Number of registered farmers** | 113.123 | 413.400 |
| **Number of graduates** | 33.205 | N/A |
| **Total budget allocated (USD)** | 5 million | Unknown |
| **Measurement / Incentives** | Exams / 2005 participants were rewarded various prizes | No Exam / No Prizes |
urban areas in Ankara province between 2018 to 2019. A total of 200 samples were collected, 100 from urban and 100 from rural areas with an equal ratio distribution of men and women. Their result shows the use of ICT in the rural women population was at the lowest level. The women do not show any interest in Media devices such as the computer, tablets, or smartphones due to the high expenses compared to their low-income level in addition to the lack of access to the Internet. For instance, a rural area just an hour away from the capital Ankara has limited infrastructure such as cable or ADSL, and only mobile technologies are available. Despite the fact that mobile phones are widely used by all (men and women in urban and rural), the use of smartphones is much lower in the rural female population, and a quarter of them do not use smartphones as they do not have the device or they are perceived to be too unreliable to shop online or for internet banking.

Among rural women, media devices are used for purposes such as watching videos, instant messaging and following social media, which can be considered instant and relatively harmless. Besides, the usage for financial purposes and shopping is zero, which is accessible and very popular in urban areas.

4.2.2 A Success story from Soma

Soma is a town with a population of just over 100,000, famous for its coal mines located in the district of Manisa Province in the Aegean region of Turkey (Figure 8). More than half of the land in Soma is mountainous with limited agricultural land. It is also known as a town that suffered from the worst mining disaster in Turkish history, killing over 300 people. Women were devastated by losing husbands, sons, and brothers, and, also, they had to deal with the decline in jobs for the remaining men in Soma.

During this tragic year of 2014, some successful women initiatives were established, such as “Women First in Soma: Training and Production Center” project. This was launched to support rural women, and it created a significant impact in the region. The project was coordinated by a non-governmental organisation called the Women Entrepreneurs Association of Turkey (KAGIDER), in collaboration with the Turkish Vodafone Foundation and the Soma Municipality to support the production and sales of handmade crafts and products. This project also received the United Nations Development Programme’s (UNDP) special prize at 14th Golden Compass Awards. The sustainable infrastructure was provided with support from the municipality, such as a studio, a computer room, and a seminar room with the capacity to offer 50 training programs to 200 women. This a good example of the education funded by a large scale project that promotes media literacy in Turkey.

Three hundred seventy rural women were registered in the first group, and 124 of them received a Vocational Training Certificate. The project activities include not only education (vocational training) but also provided support for start-ups and jobs by providing opportunities. For example, the centre worked with a home textile company “English Home” which created an opportunity for 64 women to work on the towel design for 22,000 orders. Also, the women in Soma are trained by the famous designer and had the opportunity to learn how to transform the traditional designs to more contemporary styles to complete in the market. The outcome of this project implementation was widely disseminated via multimedia, including on television, newspaper, social media at local, national, and international levels. For International Women’s Day on March 8, special products were produced by one hundred women trained on embroidery and sewing. These products produced at the centre are also sold at the Vodafone shops, also given to Vodafone partners as gifts. Those special events visible in a variety of media created a vivid and positive image for those women entrepreneurs, which clearly encouraged women to overcome challenges to entre the entrepreneurship path.

With the support of multiples actors, rural women in Soma became more entrepreneurial, and many of them started their own business utilising media literacy and entrepreneurial skills. For instance, Soma Women’s Workshop (Soma Kadın Atölyesi) cooperative is supporting women
transforming themselves from housewives to businesswomen by providing training and opportunity to generate more income. They are using new media such as selling products on websites, Facebook, Instagram, YouTube, and WhatsApp, as well as appearing in television programmes.

Among many other organisations supporting projects, the Vodafone Foundation supports activities using technology to deliver benefits to the public. For example, the programme supporting women was initiated in partnership with the Ministry of National Education and the Turkish Informatics Foundation in 2015. More than 36,000 women received training in the area of entrepreneurship, communications, and finance and as well as the platform to sell their handmade products on a bespoke website after the completion of the programme. In addition, a new mobile application was introduced primarily to enable women to access e-learning content and manage their products. The application has been downloaded over 21,000 times in the first year, and over 50% of the users completed the e-learning.

5. Discussion

This study addresses the economic aspect of media literacy by studying how media literacy impacts entrepreneurial activities among rural women supported by Barbaroux’s theoretical framework on information asymmetry. The findings provide insight into the current use of media by comparing rural women entrepreneurship in Japan and Turkey studies and its effect of media on entrepreneurship. As shown in the literature review and case study sections, the current low uptake of the technology affects the level of ICT adoption in general and much supports are needed to improve the current state. Hence, social media is seen as the most applied approach, which affects generating more income with minimum cost among rural women as the platform, direct connection between sellers and buyers in real-time. The information asymmetry creates an advantage in opportunity identification and how media literacy creates such information asymmetry for the rural women who access to program and content. Therefore, they should learn how to deal with the use of technology and to create innovative content as better knowledge of media helps people to create more value.

Although both have similar situations in terms of women’s issues, the case studies demonstrated that they are at different stages with different needs. The role of the agricultural extension service is still the key to the success of capacity building in Turkey. Whereas in Japan, they do have considerable access to the media, and related pieces of training are available not only from the government and institutions but also by the enterprises.

According to the theory of asymmetric information, markets may fail due to an imbalance in the information available to both the buyer and the seller. Furthermore, this is precisely where media usage can influence positively if accurate information is obtained, as presented in the case study of Japan. By the use of information asymmetry due to media literacy, rural women could understand the market need every day. The buyer, Irodoi Company, utilised the Internet to place orders and provided the updated information on precisely what kind of leaves are in demand on a daily bases. The lists are accessible from their PC, tablet, or smartphone instantly, and the sellers act immediately to provide items for delivery.

This comparative study between Japan and Turkey attempts to better understand the usage of media literacy to promote entrepreneurship among rural women entrepreneurs. The findings confirmed that use, understanding, and creation were the most relevant dimensions of media literacy adapted to the rural sector. Similar results have been found by other authors (Livingstone, 2004; Park, 2012; Rasi et al., 2020). The appropriate use of media is one of the key elements as it opens up more opportunity to generate revenue by connecting entrepreneurs with broader networks, in real-time, with minimum cost. To do so, rural women should be trained not only in entrepreneurial and technical skills but also to understand how to use media in practice. As noted by Kursat Demirýürek
and Atsan (2015), agricultural television programmes play an essential role in bridging this gap to support those rural women entrepreneurs. However, the combination of traditional (i.e., face to face training and advice with printed materials) and digital media is more productive, especially in developing countries such as Turkey. Although the landlines for internet infrastructure are limited in rural areas, rural people widely use the Internet from their mobile phones. Agricultural television programmes are still the most accessible medium, especially for rural women in Turkey (Gul & Demiryürek, 2020).

Conversely, the internet connection is widely available in Japan, and more rural women have access to the devices, and access to media content is available even for elder women entrepreneurs. The results of our study correspond with the findings of previous reports provided by the world bank, GEM, OECD highlighting the need for training and educational programmes. Besides, media literacy is a must for rural women entrepreneurs to minimise the transportation cost, save time with online payments, trading, and labour cost to compete in the online sales economy.

The finding of this research support previous studies (Hindle & Klyver, 2007; Knobloch-Westerwick, 2014; Rubin, 2008) and show that there was a positive association between media usage for successful rural women entrepreneurs, specifically in opportunity-based entrepreneurship. Their main findings were that media coverage reinforces values and commitments; however, it cannot shape or change them. For example, the same result was also presented by Hindle & Klyver (2007), and they noted that media influence values, attitudes, and behaviour toward entrepreneurship among the existing entrepreneurs but not the ones who have no business or at the early stages of start-up.

Research question 1 was, ‘What are the dimensions and the effect on the use of media literacy among rural women entrepreneurs?’ Based on the previous studies conducted, three dimensions were prioritised, especially relevant to the New Media (digital media) in the 21st century, which are Use, Understand, and Create. For instance, Park (2012) and Rasi et al. (2020) also extracted these dimensions in their research focusing on how people use and access digital technology, understanding critical conditions which lead to more opportunity (Livingstone & Lunt, 2014), and create content using digital technology.

Research question 2 was, ‘What kind of approaches are applied by rural women entrepreneurs to foster media literacy to develop their entrepreneurial capacity?’ As described in the literature review, the use of Social Media is the most applied approach, which affects generating more income. To achieve this goal, there are several training projects explicitly implemented for women in rural areas to enhance their media literacy. Therefore, entrepreneurial agricultural extension is seen as an essential application to support and provide more opportunities for rural development. Such approaches include a combination of social interaction and technology (online platforms) with entrepreneurship education. The literature also strongly highlighted that access to social media is an advantage for disadvantaged groups such as rural women as it provides the platform, direct connection between sellers and buyers with minimum cost. However, basic training and education is a necessary factor as the use of media technology requires not only the knowledge for reading and writing but also, rural women entrepreneurs should learn how to deal with the use of technology and to create innovative content. This reflects another aspect of media literacy that is more commonly studied.

5.1. Implications and Research Limitations

This article can be useful for different actors, including the policymakers and practitioners, to review the existing supporting mechanisms and to create innovative solutions by collaboration. The findings support the argument of Bock (2004) that policymakers should take the specific characteristics and approach to support rural women entrepreneurs, as their motivations and goals...
are different from those of men, and the performance should be evaluated differently. This study also can be used for activists of gender equality by showing that access to media and educating media literacy can fill the gap between women and men in both cognition (understanding the environment) and in connection (access to resources).

The study has a limitation due to its small-sized sample. Therefore, further research with wider sample sizes may provide substantial contributions to the literature conducting an embedded multiple case study to investigate some organisations and to examine the aspects (such as sales, marketing, accounting process) enhanced by media use.

5.2. Suggestions for future research

There are less than two women for every ten-man that run their business (Kelley, Brush, Greene, & Litovsky, 2013). Female entrepreneurship in Turkey is highly influenced by the structural adaptation policies offered by international financial institutes such as the International Monetary Fund and the World Bank, which brought new policies favourable for women. Yetim (2008) stressed that working in your own business is considered to be a more appropriate option for women who want to work but cannot find a paid job due to the lack of education and skills. The suggestion for future research includes collecting a larger number of case studies to learn more about the impact of media and the relationship across different subfields in management research. Also, it is suggested to apply similar approaches as the ethnographic research the potential to add a certain quality towards the critical understanding of social innovation (Newth, 2018).

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Biography:

Hiroko Kawamorita is a Lecturer of Entrepreneurship at Ondokuz Mayis University, Samsun, Turkey. She is also working at the International Relation’s office, creating and implementing international projects. She is also the academic coordinator at Global Education Career Centre, UK. Her research interests include Entrepreneurial University, Media Entrepreneurship and Rural Women Entrepreneurship. She holds a Master of Business Administration from Cardiff Metropolitan University, UK, studied and worked in different countries for over 20 years, including Italy, Iran, Turkey, Jordan, Maldives, Tunisia, Malta, and Japan. She is the Editor in Chief for the International Journal of Economics & Strategic Management of Business Process, as well as the International Journal of Business & Economic Strategy.

Noriyuki Takahashi is a Vice President at Musashi University, Tokyo, Japan. He is also the leader of the GEM Japan team. He obtained his Bachelor of Economics from Keio University, Tokyo, Japan, then a Master of Business Administration from Babson College, Wellesley, the USA. Besides, he has worked for over 20 years at Japan Finance Corporation prior to his Professorship appointment at the University.
Kürşat Demiryürek is a Professor at Ondokuz Mayıs University, Samsun, Turkey. MSc in distance farmer education with television from Ankara University, Turkey. Ph.D. from the Agricultural Extension and Rural Development Department of Reading University, England. Professional experiences in rural extension, innovation systems, social network analysis, organic agriculture, rural distance education and entrepreneurship and worked several FAO, UNDP, WB, and EU projects. Editor of Journal of Agricultural Extension and Rural Development. Established pre-incubation and informatics centres for entrepreneurship. Coordinate entrepreneurship and innovation, both formal and distance programmes at OMU.

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