

THE ROLE OF WEB-BASED E-COMMERCE IN INCREASING THE SPECIALTY COFFEE SALES DURING THE PANDEMIC IN THE UNITED ARAB EMIRATES

Peran E-Commerce Berbasis Web dalam Meningkatkan Penjualan Kopi Spesial Selama Pandemi di Uni Emirat Arab

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Abstract

The competitive market competition in the coffee industry is quite active in the United Arab Emirates, both from local coffee roasteries and from coffee shops. Coffee is a trend that is most in demand by various groups, both local and ex-pats, making the United Arab Emirates one of the world's coffee mecca, from high-grade level sensory in Arabica to the commercial level. However, when COVID-19 hit the world economy, it also hurt the coffee market in the United Arab Emirates. Each of them strived for resilience and bounced back to stabilise the local economy, including the coffee industry. E-Commerce is one of the solutions offered to strengthen the point of sales in business. Coffee is also one of the local community's favourites. The existence of web-based e-commerce is profitable in providing caffeine needs during the pandemic. The author used mixed methods to analyse and draw conclusions to find out further about the role of web-based e-commerce in the United Arab Emirates. The finding shows that web-based e-commerce has a significant role in helping point of sales resilience in specialty coffee products in the United Arab Emirates, indicated by a significant correlation, with pointed criticism of the price of labour $r = 0.77$ is above the 95% and 99% confidence levels = 0.316 and 0.109.

Keywords: Specialty Coffee, coffee roastery, e-Commerce, Resilience, Business Intelligence

1. Introduction

Over the past five years, the hectic trend of specialty coffee has provided the latest additions to the global market; the same thing happened massively in the United Arab Emirates. This trend makes coffee one of the most significant consumptions and is savoured by many levels of society in this country. It is determined that the typical consumption of coffee in the United Arab Emirates is very huge with the massive appearance of new coffee roasteries and coffee shops, where has become the latest millennial trend. Lifestyle influences the rapid growth in coffee sales, where demand for specialty coffee increases in the United Arab Emirates (Maspul, 2021b; Rhiney et al., 2021). More and more people are buying coffee based on various premium grades and the expertise of roasters and baristas in-demand professions. Another specialty of specialty coffee is also the growth of the business through new outlets with varied tastes that have emerged. Coffee, in particular, is gaining popularity among young people and those who want to taste it at a satisfying a higher sensory level, which made an exceptional corner for new restaurants and third to fifth coffee shop concepts everywhere. The United Arab Emirates has several globally recognised coffee brands, and many local operators have contributed to the spirit of the coffee business in B2B (business to business) and B2C (business to consumer) (Alaa Hammami et al., 2018; Maspul, 2020).

Meanwhile, the industry is being swept up by the flow of new trends, mainly influenced by the latest technologies and consumers' ever-evolving tastes and preferences. The improvement in the overall quality of specialty coffee continues because of the discovery of high-end products from single origins that are in demand from various countries. Each has a high grade in sensory level. Specialty coffee is surprisingly imported from South America to Africa and Southeast Asia with a wide range of sensory tasting notes. Specialty coffee remains popular with connoisseurs. Brewing coffee is said to deepen the flavour and balance unwanted acidity and bitterness. One of the benefits of coffee brewing is that the chemical process is constantly changing. A person can drink specialty coffee and experience different flavours at different levels of time (Feria-Morales, 2002; Maspul, 2021a; Rocha et al., 2019).

Meanwhile, specialty coffee remains a highly demanded beverage among UAE consumers, the growing appeal for specialty coffee is noteworthy. It is now associated with a fine dining experience apart from the traditional and casual fast-food culture. Likewise, *gahwa Arabia* (القهوة العربية) has become an integral part of local traditions and is usually served as a welcome drink, expanding its horizons in the beverage industry (Al-Aali, 1996; Rhiney et al., 2021). All of them are linked in the final product offered through the coffee culture in the growing coffee shops in the UAE and brings together all levels of connoisseurs, both common and affluent. The cafe provides a particular taste and elegant atmosphere, helping the connoisseurs get a high preference in enjoying specialty coffee (M Al Ghali et al., 2017; Maspul, 2021b).

Furthermore, the Covid-19 arrival, which has become a global epidemic, has had a different impact on all commodities worldwide. Coffee commodities are no exception, especially in the United Arab Emirates, one of the world's specialty coffee hubs (Al-Fadly, 2020; Maspul, 2021b). Many coffee shops are improving by looking for new strategies to maintain sales and be resilient in difficult times. Covid-19 has also made the theory of change ignite faster in the minds of all coffee entrepreneurs, both for roasteries and coffee shops. After opening the

three-month lockdown in the United Arab Emirates, the government brought society to bounce back and return to a new track called the "new normal" and positively impacted the business atmosphere, which experienced a decline in offline sales. The implementation of the health protocol at this coffee shop is by providing handwashing and hand sanitisers in several spots. Visitors are also advised and constantly reminded always to wear masks when not consuming food and drinks; the imposition of sanctions for those who resist by violating the rules (Al-Fadly, 2020; Hernandez et al., 2020; Maspul, 2020).

1.1.E-Commerce Development and COVID-19

All industries are experiencing severe changes due to the COVID-19 pandemic. Even though the global economy is declining, several sectors are showing an increase in value: e-commerce. The general behaviour of e-commerce consumers has changed drastically from March to June 2020. These changes are expected to persist even when the COVID-19 pandemic will stop; therefore, the e-commerce sector will continue to grow. It can be assumed that the longer the pandemic lasts, the more people will migrate from stores (Abdelrhim & Elsayed, 2020; Bhatti et al., 2020). VanHoose has described previous studies on e-Commerce Economics and its practice related to computer-mediated electronic networks, such as the internet, as a mechanism of transferring ownership of rights to use goods or services. This is where it needs to be explored that progress such as web-based e-commerce is significantly bridging the challenges that exist during the time of covid-19 like the current situation (VanHoose, 2011).

The increase between 2019 to 2020 was significant compared to the previous year, indicating increased online transactions during the COVID-19 pandemic. E-commerce business is also a considerable need for the public in transacting during this pandemic. People are afraid to shop directly, so purchases of some necessities are made online through e-commerce platforms. In addition to the well-established national e-commerce business platforms, local e-commerce platforms are also emerging, especially to meet basic needs. Young people in some cities create local e-commerce platforms to help buy goods from consumers to the market. Next, there are startup business collaboration tools such as the Google Meet and Zoom applications which became popular in the era of the covid 19 pandemics. Opportunities in this sector were taken by foreign companies considering that in the United Arab Emirates itself, there are still few or no actors who take advantage of opportunities in the collaboration tools startup business (de Oliveira Dias et al., 2020; Guo et al., 2020; Hasanat et al., 2020).

E-commerce in the United Arab Emirates has increased 300% during the COVID-19 pandemic; daily online transactions increased. New e-commerce customers were added by 196 licenses, with clothing and food sales increasing highest number before the pandemic. Noon even noted that demand for fresh food grew higher in April 2020 (Ghandour & Woodford, 2020; Parker, 2020). However, the restrictions on the transportation sector became an obstacle in the slower delivery of goods; the delivery process within the city 1-2 days before the pandemic becomes slow 2-5 days during the pandemic, inter-island shipping is even slower before the pandemic 3-4 becomes slow 4-7 days due to flight restrictions and airport closures (Aladwani, 2003; Ghandour & Woodford, 2020).

The policy of preventing the transmission of the covid-19 pandemic so that people avoid going out of the house, keeping a distance and even working from home so that consumers avoid shopping directly in stores and crowded areas and say they prefer not to shop at stores before the coronavirus vaccine (Aladwani, 2003; Maspul, 2020). The effect of the Coronavirus is different on the type of product, meaning that the impact of COVID-19 on some products is very high, but on some other products, it is less impactful. The most purchased products during the pandemic were equipment that was commonly used by people daily. Media use has also experienced significant growth with many online activities such as online learning and online meetings. Facebook (including Instagram) and Google companies update their features to connect more people simultaneously; like Facebook, it introduced consumer messenger, provides online buying and selling services for many people and competing with Zoom; similarly, Google Meet launched (Al-Marroof et al., 2020; Reardon et al., 2021; Svajdova, 2021).

The state of the Covid-19 pandemic positively affects shopping online trading worldwide since every person using a smartphone. E-commerce is also experiencing a significant country trend; online school policies and work from home in the United Arab Emirates significantly impact internet use. Some e-commerce websites in the world have increased during the pandemic. The frequency of e-commerce purchases is due to the pandemic (Darby et al., 2003; Lin et al., 2020). Observing also the difference between customer behaviour in the several countries most affected by the pandemic in the world. Due to isolation measures, consumer spending in physical stores has drastically decreased as more consumers switch to online shopping; more than half of consumers in most Asian countries stated that they made online purchases more frequently during the pandemic than before, followed by Italy with a third of consumers. On the other hand, in half of the analysed countries, less of consumer stated that they increased their online shopping activity than before, such as France, Germany, Canada, Australia, Japan and the United Kingdom, This is since residents of these countries often shopped online before the pandemic, so they did not show a drastic increase during the pandemic (Johnston, 2021; Sardjono et al., 2021; Svajdova, 2021).

The COVID-19 pandemic has impacted economic growth due to uncertainty in the supply chain and consumer demand. However, encouraging an increase in e-commerce business during the COVID-19 pandemic in the world (Darby et al., 2003; Geetha, n.d.). New e-commerce customers in the United Arab Emirates have increased 5-10 times during the pandemic; however, there was a slowdown in the process of securing goods due to transportation restrictions and airport closures. The increase of e-commerce during the pandemic affects the rise of the future market and will continue for the easiness use and consumer behaviour (Roberson, 2014; Soundararajan, 2018). The major competitors in e-commerce in the United Arab Emirates include; Amazon, Awok, Careem, Deliveroo, eBay, Namshi and Noon. Some become a smartphone applications in helping ease and can also be accessed via the web (Baskaran & Rajavelu, 2020; Vakhariya, 2020).

1.2. The UAE's Specialty Coffee Culture and Dynamics

As one of the largest global commodities in public consumption in food and beverages, the specialty coffee demand in the United Arab Emirates is getting stronger with the emergence of many local coffee entrepreneurs. In the local community itself, coffee has become a trend that is very popular even abroad. The United Arab Emirates has become a global hub for specialty coffee with the emergence of a single origin with a higher grade of specialty coffee and is enjoyed by residents and ex-pats. At the same time, a coffee trend emerged through a global event held in the United Arab Emirates, with many coffee specialists from coffee roasters to baristas and coffee trainers also becoming coffee ambassadors from origin countries to promote their local coffee worldwide market in the UAE. Besides being the most developed coffee shop in the Gulf Cooperation Council (Maspul, 2021b; McAdoo, 2020; Vanharanta et al., 2015).

Coffee segmentation also has a significant variation from the commercial level to the high graded level, which is the value of specialty coffee. The coffee roaster and barista provides a better service to the customer, knowing the customer's demand and can mix coffee according to reasonable coffee standards; improper extraction will result in sensory failure with the authentic taste sensation of coffee. So from here, customer preference can be observed as a market suitable for coffee that is a reference, both from grade at the green coffee level to sensory from the results of the final product in quality control (Feria-Morales, 2002; Vegro & de Almeida, 2020). Whereas a measurement in a higher level of specialty coffee must have a grade of 80+, from which consumers can check their pockets to enjoy the concoction of local roasters and baristas. Even with a super costly price, consumers, especially in the United Arab Emirates, do not hesitate to spend money up to a standard Swiss watch for the price of a cup of Gesha coffee. The roaster determines everything in setting the price differentiation in the super final product of an aftertaste of coffee, from body flavour, mouthfeel to characteristics, etc. (Ferreira et al., 2021; Giovannucci & Ponte, 2005; Levy et al., 2016). They harmonised with detailed harvests of the countries on the axis of Cancer and Capricorn in processing to maintenance to the roaster. It could also be through an auction conducted by several organisations in coffee commodities such as the Cup of Excellence (CoE), where each has the best scores, which are sold to roasters as buyers of the product (Maspul, 2021a; Traore et al., 2018; Wilson & Wilson, 2014).

The coffee entrepreneur is known as a trend for residents; it continues to grow, making specialty coffee a unique idea among young people, especially citizens. It has become a habit among young people to consume coffee, especially when starting work or accomplishing daily activities. It's never dull to be a burden always to enjoy coffee, either from individuals or when crowded together, meanwhile, besides traditional coffee, which is the unique local wisdom of the type of local drink for Emirati people, *gahwa Arabia*. In addition, it is also one of UNESCO's Intangible Cultural Heritage which has its own uniqueness in enjoying coffee as a legacy of the past (Bhumiratana et al., 2011; Martín, 2021). So as a continuation of the tradition of drinking coffee, almost all levels of society have become acquainted with the kind of drink currently a global conversation, specifically the specialty coffee. From the beginning, the coffee served has a certain measure that the international Specialty Coffee Association (SCA) has applied as a

specialty coffee standard. Where can be explained, from roasting according to the right temperature and colour range to how to brew and extract coffee with the suitable standard to produce tasting notes from the balance of acidity contained in the chemical reaction process in coffee (McManus, 2007; Mendonça et al., 2016; Poltronieri & Rossi, 2016).

The final product of specialty coffee is varied from espresso and mixing with a standard in frothing the fresh milk from its heat to the quantity of the milk itself, which is poured with various forms of latte art patterns. Then from coffee filters that vary from presentation taken from types of serving products such as Chemex V60 Kalita and others for intermediate kinds between espresso and filter; namely Aeropress in extracting coffee is smoother and at a different pressure than most espresso machines. It entirely depends on the consumer's preference for the choice; the constituents are sometimes sought for the latest offering, from cold brew fermentation to nitro, etc. (Adhi & Yunus, 2021; Lee, 2021).

1.3. Coffee Store Digitalisation through E-Commerce

One of the most challenging times after world war II is the COVID-19 period. With the entry of the COVID-19 period, all businesses in the United Arab Emirates must adapt and adjust to the drastic changes in consumer behaviour. Each business perceives a lockdown for no less than three months of the lockdown period, following the other restrictive regulations. There is no exception with coffee entrepreneurs who maintain sales on their business by looking for different sales patterns, precisely when lockdown happened. Moreover, those who persist can adapt to the digitisation of sales, e-commerce being the better shield option in protecting the coffee market's stability in the pandemic era (Kohli et al., 2020; Paul et al., n.d.).

Moreover, part of consumer behaviour certainly still wants a daily routine in consuming coffee so that regardless of the lockdown, the coffee community will continue to consume this magical drink. It's just that there is a change of place, where they usually drink it in coffee shops with western and eastern elegant designs in the crowded corners of the city, while now enjoying it with a book in the courtyard or on the balcony. The digitisation of coffee sales has strengthened the business resilience of coffee entrepreneurs; many coffee communities have ordered coffee brewing equipment to help maintain their daily lives with coffee extracted by each individual. Sales rose to more than average sales of e-commerce and even covered offline sales, which are usually the core sales booster for each of the prominent business people in the coffee industry. This is also responded strongly for coffee roasters who are the core in the downstream coffee supply chain, creating the sustainable supply chain and broader diversified consumer demographic and behaviour through online sales (Bredmar, 2017; Maciejewski & Mokrysz, 2019; Maspul, 2020).

Furthermore, sales are getting more robust with sales per kg and per 250gr of coffee for homebrewers; each individual can also meet their coffee needs during the pandemic. In short, the pandemic has only changed the location of coffee drinkers by shifting offline sales to online via web-based e-commerce, both from selling coffee accessories to roasted coffee. They even offer the deal of coffee that has become the epitome of instant coffee

that is ready to be brewed and coffee that has been mixed with water as the final product that is ready to drink. The COVID-19 pandemic essentially modified the coffee sector's relationship with e-commerce, particularly web-based service, with more progressive attainment of coffee subscriptions, and will trend endure long into the future. E-commerce provides coffee businesses with increased opportunities to influence potential consumers. Furthermore, by leveraging buyer choice, they are further effective than ever to control consumers (Kohli et al., 2020; Maspul, 2021b; Svajdova, 2021).

2. Methodology

The study applies a mixed methodology between a qualitative approach with a quantitative descriptive in an interpretive paradigm that aims to gain insight into the output and strategies that have been carried out by specialty coffee roasteries and coffee shops during the Covid-19 pandemic through web-based e-commerce. The research method used is descriptive, while analysis in this study is from eleven coffee entrepreneurs who ran a business in coffee roasteries and coffee shops in Dubai and Abu Dhabi, the United Arab Emirates. The author has conducted interviews with respondents, such as;

- 1) Owners of specialty coffee roasteries and coffee shops,
- 2) co-Founder/roaster/barista/staff, and
- 3) Marketing experts in the field of e-commerce. The data collection method utilised questionnaires and in-depth interviews conducted offline and online, closed questionnaires and open discussions through the interview. Data analysis was carried out also using data analysis product-moment technique and observation, such as;
 - Compiling and preparing the data to be analysed,
 - Reading all the transcribed data to find the meaning of the research findings,
 - Categorising data to reveal the result, and
 - Interpreting quantitative and qualitative research findings data from questionnaires and interviews.

Besides, the study uses SWOT analysis to identify factors that aim to formulate the coffee company's strategy in using web-based e-commerce. This analysis is based on the general coffee company's approach to maximising strengths and opportunities while minimising weaknesses and threats (Penttinen & Turunen, 2017; Pulido, 2017).

3. Data Analysis and Results

3.1. Questionnaire Results

After the data collected has been allocated into the table, it is further analysed to prove the proposed hypothesis. The deviation of scores are calculated within the formula, using each variation inserted in the product-moment as follows:

Table I
Table For The Product Moment Correlation Coefficient

N	X	Y	X	Y	x ²	y ²	xy
11	28	25	2.55	2.27	6.48	5.17	33.47
11	30	25	2.73	2.27	7.44	5.17	38.42
11	26	27	2.36	2.45	5.59	6.02	33.66
11	30	29	2.73	2.64	7.44	6.95	51.70
11	30	28	2.73	2.55	7.44	6.48	48.19
11	28	26	2.55	2.36	6.48	5.59	36.20
11	28	26	2.55	2.36	6.48	5.59	36.20
11	28	29	2.55	2.64	6.48	6.95	45.03
11	29	27	2.64	2.45	6.95	6.02	41.87
11	29	26	2.64	2.36	6.95	5.59	38.83
11	24	25	2.18	2.27	4.76	5.17	24.59
Total	310.00	293.00	28.18	26.64	72.48	64.69	428.16

- N = 11
- $X = \frac{\sum x}{N} = \frac{310}{11} = 28.18$
- $Y = \frac{\sum y}{N} = \frac{293}{11} = 26.64$
- $\sum x^2 = 72.48$
- $\sum y^2 = 64.69$
- $\sum xy = 428.16$

Furthermore, the above results are incorporated into the product-moment formula as follows:

$$\begin{aligned}
 r_{xy} &= \frac{\sum xy}{\sqrt{(\sum x^2) \cdot (\sum y^2)}} \\
 &= \frac{428.16}{\sqrt{(72.48) \cdot (64.69)}} \\
 &= \frac{428.16}{\sqrt{4688.73}} \\
 &= \frac{428.16}{550.73} \\
 &= 0.77
 \end{aligned}$$

Furthermore, after the testing and analysis of the data, the author continues in interpreting the results so it can be measured in two ways:

1. Match with the conservative value table.

Table II
Table of Conservative Value

Sizes	Interpretation
0.800 – 1.000	High correlation
0.600 – 0.800	Quite correlation
0.400 – 0.600	Rather low correlation
0.200 – 0.400	Low correlation
0.000 – 0.200	Very low correlation (not correlated)

2. Matching the values of "r" (the price of criticism of the value of r product-moment)
As for the price table's criticism, the product-moment correlation for N = 11, i.e. for a 95% significance level is 0.316 and a 99% significance level of 0.109.

Table III
Table of the Price of Criticism of the Value of r Product Moment

N	Interpretation 95%	Interpretation 99%
11	0.316	0.109

Meanwhile, by matching the values through tables for the product-moment, the correlation coefficient value of 11 is a 95% significance level for 0.316 and a 99% significance level for 0.109. On the other hand, the results were obtained from calculations for 0.77, so the product-moment correlation significance level analysis was more remarkable than the 95% and 99% significance levels.

3.2. Interview Results

The e-commerce development in the United Arab Emirates is quite bustling, especially in the coffee sector. As one of the sales milestones in business, e-commerce has become one of the platforms that coffee entrepreneurs are interested in. During the pandemic, coffee entrepreneurs have changed their sales and e-commerce strategies into solutions in maintaining business resilience. Digital marketing is increasingly becoming a skill that requires coffee entrepreneurs to understand more deeply; their core sales are becoming a single unit during a pandemic. As mentioned earlier, consumer behaviour has changed in coffee consumption; from here, coffee entrepreneurs answer the challenge of changing sales offline to online. Some of the respondents, the two of whom had run an e-commerce business before the pandemic, and three others started e-commerce at the current pandemic.

Online coffee sales increased in the United Arab Emirates; the respondents interviewed agreed that e-commerce was one of the solutions that made their business resilience run well during the pandemic. This is due to the needs of local communities that they must meet from their daily caffeine consumption. Likewise, with the brewing equipment sold by respondents through their website, many local people bought the V60, Chemex, coffee brewery accessories and other types to help their brewing needs to extract coffee at home during the pandemic. One respondent said that online sales increased up to 280% from average sales in the pre-pandemic period; this was due to people's concerns that the goods supplied for brewing equipment/accessories would run out. In addition, coffee roasters can maintain sales of roasted coffee which is their core sales; the majority of respondents said that they strengthen sales of final products such as instant coffee and

ready-to-drink coffee as supplementary ingredients in addition to selling coffee roasted products.

Some respondents also varied in their response to web services, where the majority used monthly and yearly subscriptions such as Wix, Squarespace and Shopify, which can be helpful channels for the point of sales (POS). In addition to coffee roasters who make retail sales online, several coffee entrepreneurs sell roasted coffee supplied from several coffee roasteries in the United Arab Emirates. They also make sales to strengthen the regional market of coffee accessories and various other brewing equipment. Coffee entrepreneurs agree that the cost of e-commerce is very light. Three of the respondents said they hire e-commerce technicians to maintain their business and calculate the effectiveness of this platform, including responding to inquiries about specialty coffee products needed by consumers.

Moreover, in managing storage to complaints against customers, communication between coffee companies and consumers uses several services, including email, direct telephone, social media and What's App services. As for the use of social media, to target the market, most respondents use Facebook pages, Instagram and Google Ads. Five of the respondents use Search Engine Optimisation (SEO) to target customers. One of the respondents uses Snapchat since the demand is more to the local Emirati market, which frequently uses Snapchat than other social media.

For delivery, they use various options; some choose DHL fast service couriers for local and international. Some respondents use standard delivery services that are commonly used, such as Aramex Fetcher and several other new local couriers in the United Arab Emirates. Some use direct delivery for ready to drink coffee beverage products that are integrated with other e-commerce services such as Noon, Talabat and Deliveroo, which can deliver orders from online purchases immediately on the same day.

Meanwhile, as for the web-based e-commerce SWOT matrix from the interview as follows:

1) Strengths

- Sales of high-grade coffee worldwide,
- Sales marketing of specialty coffee to appropriate consumers,
- Online branding for the local artisan coffee roastery,
- Broader demographic for coffee sales,
- Access unlimited product sales,
- Ease of digital marketing analysis and gaining insights from every internal and external aspect of sales,
- Instilling deeper trust in consumers towards brands and selling products,
- Ease of being chosen by consumers via the web,
- Ease of online payment through payment gateway, merchant, mobile commerce and so on,
- Ease of controlling coffee sales stock and coffee value chain management.

2) Weaknesses

- High prices for a particular product,
- Limited samples to know the sensory before buying the product,

- Delay in delivery service,
 - Poor packaging conditions during delivery,
 - Cross-contamination of coffee products with other undesired items during delivery.
- 3) Opportunities
- Increase the long term reputation of the physical and online store,
 - Product diversification in one webshop,
 - Variety of promotions and discounts made online,
 - Optimisation with partner cooperation,
 - Ease of collaborating with other products as a branding,
 - Consumer diversification and expanding sales market,
 - Broader development of specialty coffee products,
 - Development of specialty coffee education through blogs, recorded training sessions, etc.
 - Interactive live conversation through artificial intelligence.
- 4) Threats
- High delivery costs,
 - Competition among online coffee shops and coffee roastery,
 - Return of shipping products that are rejected by the consumer,
 - The threat of fraudulent,
 - The threat of disclosure of consumer data.

4. Conclusion

From the summary of the research results, the author has carried his conclusion as follows:

- 1) The role of web-based e-commerce has correlated significantly to specialty coffee sales during the pandemic in the United Arab Emirates, with pointed criticism of the price of labour $r = 0.77$ above the 95% and 99% confidence level = 0.316 and 0.109. Moreover, the H1 (Working Hypothesis) reported that web-based e-commerce contributed to increasing specialty coffee sales in the United Arab Emirates accepted.
- 2) The role of web-based e-commerce has a modest correlation in increasing the specialty coffee sales during the pandemic in the United Arab Emirates when seen from the table with a conservative measure of the size ranges above 0.600 up to 0.800.
- 3) Interviews with coffee roasters and coffee entrepreneurs explained their satisfaction in using web-based e-commerce in increasing specialty coffee sales amidst the pandemic in the United Arab Emirates. Among them, one respondent explained that specialty coffee sales from roasted coffee and coffee accessories even reached 280% of sales during the pandemic, which can help cover costs in daily operational needs of specialty coffee production.

5. Suggestions

From outcomes that become exciting particularity approaches in research and development, especially for coffee entrepreneurs and related stakeholders, the author provides suggestions including:

- 1) The number of coffee entrepreneurs opening a business starting from e-commerce in the United Arab Emirates is an excellent thing to enrich the diversification of the local coffee market. But it should be noted here because success in sales is related to consumers' trust as connoisseurs of the final product. Building communication across all stakeholders is necessary and anything pertaining to the supply chain.
- 2) There is a need constantly to embed sustainability in the supply chain of procedures, where farmers are most critical as the leading upstream players. So for coffee entrepreneurs, it is necessary to build a strategy to support farmers as a step forward from a sustainable coffee value chain, starting from participation in specialty coffee projects initiated by local to global organisations.
- 3) The authority in developing national securities is related to the threat of many fraudulent/cyber crimes in the Middle East through online sales in general. It is appropriate to make sustainable steps in maintaining the regional economy, where online sales are one of the technological developments that are not only utilised by licensed business entrepreneurs but also offenders who take the momentum as e-crime.

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