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| **Chapter 1: Introduction**  **1.1 Problem Statement**  Trading goods is one of the oldest practices in human history. Over time it has evolved from barter system (direct exchange of a good or services for another one) to nowadays bank transactions (transfer of money form one bank account to another). However, elements from every type of trades are still in use today.  Trading hand-made products in a time of globalisation and mass production is getting more and more popular. This can be contributed to the growth of the economy that makes valued and unique good be available to the public. Hand made products are having more values: cultural, historical, personal, and the importance of arts and crafts in society today can`t be underestimated. Artists and artisans express the feel of a time, reflecting it in shapes, colours, and images. Along with the society’s behaviour and cultural traditions, these people are presenting the emotional and artistic part of the time chronology (Kobra, 2023).  Artisans are people who were at the start of the process of creating economic and trading systems, and after multiple evolutionary cycles of trade, have the availability today to globally showcase their hand-made goods and obtain a deserved recognition in society. Unfortunately, many craft makers do not have a wide customer base, just an audience of people of close contacts and with limited way to reach broader audience.  In India, which is one of the biggest artisan markets in the world, 78% of artisans are selling their products at near-by local markets (Wilson, 2023). In England, the craft industry is providing around 4.2$ billion to the UK’s economy. It has registered around 19.5 million crafters and 2.3 million people are working in such businesses, related to the Craft industry with 11.220 businesses being registered. Research also shows that 13.3% of all adults of the British Irelands are buying at least one hand-made craft per year (Asim, 2023). This shows that the UK’s market is quite large and responds well to the public demands.  Offline sales cover just small territory for people in the local vicinity of the craft markets. 50% of the craft makers in UK are based in suburban areas and are supplying their products to local markets, thus providing these local markets an authentic charm. However, today’s modern mobile technologies are penetrating all aspects of economy and personal life - smartphones, communications, logistic, financial transactions, and can empower artisans as well in multiple ways. Online sales for artisans are possible on marketplace platforms, such as: e-bay, Etsy, Folksy, Amazon handmade, Facebook Marketplace, providing tools for craftsmen to sell their products online. Such platforms provide opportunity to have the hand–made products seen by people all around the globe and are not only available for purchase but to inspire as an art, idea, images. Unfortunately, along with the genuine crafts and arts, available to view and purchase online, there are many examples of online shops that are populating the market with some fake hand-made products (Wood, 2023).  Most of the online marketplaces are working great as *web applications* for PCs, whereas the *mobile applications* are still not very well presented and popular. In the process of the current Project’s research, it was found that *Etsy* and *Falksy* are available in Ireland and are having representation from some Irish artisans.  However, developing a suitable *mobile application* as local artisans’ platform, that could empower craftsmen of the local community in Limerick, Ireland, with both, local and global recognition, along with the opportunity for these craftsmen to sell their products to a wider customer base, would be of great help to them, as well as to people with Internet access on just their smartphones. Research shows that in Ireland, 90% of the adult population is using smartphones (Central Statistics Office Ireland, 2021). |
| **1.2 Project Background information**  **1.2.1 Historical Perspective:**  To make the trading comfortable antient societies made an agreement to use some useful products for the community as a trading measure. Those products archaeologists are calling *proto money*. (Balassa, *et al*., 2023)  *Money* is a concept of not directly exchange goods and services. It is working as a unit of measure, a universally recognized standard, for pricing and payment acceptance. Nevertheless, over the time and history, both forms of trading (barter, or with use of money) have evolved. In August 2021 it was announced the oldest known, securely dated coin 640 B.C. from Ganzhuang in Henan Province of China. (Beattie, 2022). Other coins that were found from around the globe that are even older (like, the Mesopotamian Shekel), have no date on it – their age could only be approximated by material and cultural analysis, which can`t provide a precise answer (Dehner, 2022).  The invention of money and it`s evolution played huge role in the international trade development. Connection of different people from different places led to a cultural exchange. One of the greatest examples of it is the Great Silk Road – it was a system of routes existing in the antient Eurasian continent from Mediterranean Sea to China. The Great Silk Road was not merely a route for transporting goods, it was connecting outstanding cultural pieces and standards of applied arts, architecture, wall painting, music, arts, dance, and theatrical performances of Middle Ages.” (unesco.com). And there were many other routes, well-known in history, such as: The Spice Routes, Incense Route, The Amber Road, The Tea Horse Road, The Salt Route, The Trans – Saharan Trade Route, The Tin Route, all of which were involved in shaping the culture of nations that lived at those times (Cock-Starkley, 2020).  The Industrial revolution changed the market and the social value of goods tremendously by decreasing the value of human work and producing the merchandise cheaper and faster. Despite these changes, the mass production was not able to fulfil the market globally. The requests for specially designed and hand-made items dropped down but continued to be in value. And more artists, together with craftsmen, started to organise social groups, such as Arts & Crafts Movement, which started in Britain in 1860s. The cost of craft production was too expensive for average family, however the society brought innovations and some new ideas. The movement played a big role to attract society to the value of genuine handmade products (Renauld, 2023).  During that time mass market was changing in a way of bringing more new products and technologies. And new technologies, more availability of recourses, tools and special equipment that became more accessible, and availability of more hand-made products.  Handmade and mass-product markets stop to compete for the same audience and started to exist side by side, taking advantages one from another. Mass-producers gathering ideas from artisans, and artisans – start using new technologies from the mass production (Smith, 2015). |
| **1.2.2 Current Perspective:**  In 2019, 73% of the UK’s adult population has purchased some type of craft, as has been reported by the Crafts Council in the United Kingdom, which accounts for about 25 million items. Approximate 32% of customers were aged under 35, showing that the younger populations are the largest group of arts and crafts customers. There were 11.620 craft businesses with 43000 employees (Craft Council, 2020).  The market of handmade products in Ireland is growing. There were 105,000 people that were employed in the sector of Craft and Design in Ireland in 2019, which is more than 3 times an increase from 2012, when that number was just 39 000 people. In 2020 the contribution of the sector to the economy of Ireland increased from 2.3 billion EUR to 3.6 billion EUR, even though it was during the time of Covid-19 pandemic, which was a huge stroke to the world’s economy and the small businesses, especially (Design & Craft Council Ireland, 2021).  International Health Regulation Emergency Committee of the World Health Organisation declared an emergency on 30 January 2020 in relation to Covid–19 and all countries made effort during the Corona virus pandemic to offset the economic crisis, understanding its harmful effect on people`s social, environmental, and health aspects. Small businesses, small industrial enterprises, micro-businesses, artists, and workshops were the first, who faced the issues in productivity due to the pandemic (Betzler, 2020).  During the Covid-19 lockdowns, many people created interesting solutions: go online, self-digitizing, using conference software, selling gift cards and vouchers in advance, start working remotely, creating for virtual platforms. Companies also started to automate working environment to remove the human involvement as much as possible. Some jobs were given to robots, some positions were optimised and changed to remote, some were given to special software and artificial intelligent machines (Nobre, 2020). Nerveless, the hit on small businesses was huge. As was already stated, people started looking towards technologies – there was a global awareness of the smartphones’ abilities, and the ways of using technology increased on a huge scale (De’Rahul, *et al*., 2020).  Nowadays, mobile applications can transform a smartphone into a toolbox with solutions for many problems, one of which is the lack of self-organising and management that people of arts and crafts exhibit. Examples of such mobile applications are: To – Do lists (Todolist), taking notes (Evernote) or helping to keep information available anywhere any time, without losing it (dropbox) (Sullivan, 2021)  In Ireland in 2019, approximately 84% of the adult population were using smartphones. (Gibney 2020) Statistics from September 2023 shows that *Android-based* mobile phones are the predominantly used ones and are counting for 53.85% of the Operating System Market shares of smartphones in Ireland (StatCounter).  Mobile applications can also be an online e-commerce platform, using which the artisans can have a new way of reach to customers and fans all around the world. In December 2018, the American online marketplace *Etsy*, endorsed a platform for artisans to trade handmade items (etsy.com). It had over 220,000 active sellers in U.K., and another company - Folksy, which focused on selling handcrafted gifts and original artwork, informed of having about 9,000 participating craft creators (Chhatwal 2023). To cover payments and financial transactions there are providers of mobile payment solutions, such as *Apple Pay* and *Google Pay,* that are actively competing to secure the transactions for retailers’ *Point–Of–Sale* systems. There are also mobile applications that focus on such payment methods, such as *PayPal*. (Beattie, 2022)  Irish smartphones users are limited in options for *online* *marketplaces,* which gather artisans and the public on one platform. Functionalities and features of such software thus far do not provide a pleasant user experience. At the same time, the web applications are very well made and quite popular. However, in Ireland 90% of the adult population is using their smartphones daily to check information on Internet and make transactions, which creates a habit of performing digital operations via phones only (Central Statistics Office Ireland, 2021) Thats why, a decision of creating an *Android-based* mobile application is more than reasonable.  **1.2.3 Case Studies on Similar, Already Existing on the Market Applications:**  An example of such mobile application is *Made Me* (please, see Figure 1)  *Included Features:*   * Pleasant design * Easy and intuitive in navigation * Listing products by categories * Listing artisans at near-by location on Google Maps * Easy and simple checkout.   *Not Included:*   * Doesn`t provide a forum for communication of artisans. * Very limited categories of products to purchase.   Figure 1: *MadeMe* Mobile Application’s Home Screen (play.google.com(b))   * **Folksy**   Folksy is British based marketplace that focused on handmade gift products (please, see Figure 2). |
| Figure 2: Folksy Web Application’s Main Page (folksy.com)  *Included Features*:   * Has very inspiring design as a way of creating marketplace. * Intuitive navigation. * Showing the products by categories and listing crafted products by author. * Craft makers’ filters to select by region.   *Not included*:   * Offline Registration for Artisans (the existing online registration can cause creation of a fake craft maker`s account). * Showing the artisans on a map. * Doesn`t provide a Forum for chats between craftsmen. Only direct chat to the artisan. * **Etsy**   American company that started in 2018, and is selling online handmade products from artisans (please, see Figure 3). |
| Figure 3: Etsy Web Application’s Main Page (etsy.com)  *Included Features*:   * Pleasant design * Intuitive navigation * Presenting blogs of artisans * Lising products by author and categories * Option to check the list of local craft makers.   *Not included*:   * Map representation of local artisans. * Calendar and listing of upcoming events for artisans in the local vicinity. * No Forum for chats between craft makers to share ideas. However, each artisan can have a personal blog.     *Etsy* is also having a mobile application; however, the functionality and features of that platform are more limited compared with its web application (please, see Figure 3).  *Browsing by Categories* for example, is available only after selecting *search* option on the menu bar and only there appears the option “*browse by category*”. The mobile application has a way to save items as *favourites* from the Home Screen, however the option is not very intuitively presented when *browsing by category* as part of the home screen.  Figure 3: *Etsy* Mobile Application’s Home Screen. (play.google.com (a)) |
| * 1. **Project Goal:**   The goal of the Project is to research the Literature about *marketplaces* for hand-crafted products, to develop an *Android* mobile application that as e-Commerce platform would connect local artisans with community members in a pleasant way and empower and support local small businesses with community engagement. The proposed for development application would provide a digital platform to showcase creators’ products and extend their reach to wider customers’ base not just in the local communities, but globally as well. It would promote the growth of the local economy by increasing sales and supporting the sustainability of small-scale, local production. It will offer different features, such as customers’ reviews and ratings to build a reputation system to help with continuous improvement of products and services offered.  The application is aiming to make a positive impact on local economies, artisans and craftsmen and promote unique talents within local communities.  **Project Scope:**  The Project is delimited to artists, craftsmen, artisans and the public in Limerick, Ireland, and the prototype of the system will be developed for *Android OS*. |
| * 1. **Project Description:**   Nowadays, local artisans often can struggle to represent their crafts and gain recognition that they deserve. The proposed for development mobile application as a *Marketplace* platform can not only help with selling their crafted products, but as well help to establish better social connections with other craftsmen and increase the arts and crafts cultural awareness inside a local community.  The application will provide the option for the public to make online purchases from local artisans and be aware of live gathering events, where they can meet up with the craft makers and view their products. For artists, the application will provide a platform to share ideas (over the *Themed Forums* section), sale products (as online *Point of Sale* system) and make self-advertising (over the *Gathering Events News Feed* section).  **Key Features:**   * Appropriate content * Appealing interface design and product listing * Intuitive navigation * Secure Personal data and Safe financial transactions.   **Functionalities:**  **General Public (Customer) Intefrace**   * Online Registration, creating Customer profile. * Secure Login process (with option to *re-set password*) * Local Artisan Searchwith Geolocation Services: * Implement geolocation services to show the artisans and their products within Customer’s vicinity, encouraging support for nearby businesses.   Allow Customers to search for local Artisans, based on location, product category, or specific keywords.   * Place Order and Secure Checkout: * Allow Customers to request product(s) from selected Artisan and Product Category and implement a secure and user-friendly *checkout* process, including the option for *guest checkout* and *order tracking*. * Payment Processing: * Integrate a secure payment gateway to facilitate transactions with *Digital Wallets*. * Wishlist and Favourites: * Allow users to create *wish lists* and mark *favourite products* for easy future reference or sharing. * Notifications and Alerts: * Set up *Alerts* for users to receive updates on new products promotions, or events from their favourite artisans. * Receive *Notifications* of Placed Order status (accepted/rejected/processed/paid) * Product Reviews and Ratings: * Enable Customers to leave *reviews and ratings* for products purchased and service obtained. * Community Events Listing board: * Include a *Listing board* of local artisan events, markets, or fairs to further engage with the artisan community. * Social Media Integration: * Allow users to share their purchases or desired products on social media platforms directly from the app, promoting the local artisan marketplace.   **Artisan Interface:**   * Artisan Registration & Login * *Offline* Registration process with contact information, performed by the System Administrator to prevent *online* impersonation. * Secure *Login* process with option to change (reset) password. * Artisan Profile Creation, Product Listings, and Updates: * Allow artisans to create a profile, showcasing their work, including a portfolio of products by categories, with description, pricing, pictures, which will enable them to upload images and details of their products, including categories such as handmade crafts, artwork, jewellery, etc., and to update information. * Order Management: * Provide tools for artisans to manage orders (view submitted order requests from customers, send *Notifications* of acceptance/rejection of order requests, send *Invoices* for accepted orders, and *update* order status (accepted/processed/paid), track shipments, and communicate with buyers. Include order history. * Payment Processing: * Receive Notifications for provided Payment of Order Invoices. * Promotion and Marketing tools: * Include features for artisans to promote their products, such as discounts, limited time offers, and social media sharing. * Products Rating and Comments from Customers: * Allowing to view the comments left from Customers. * Artisan Community Forum: * Create a forum/community space, where artisans can connect, share tips, and discuss their craft. |
| **1.5 Project Methodology & Evaluation Criteria:**  **1.5.1 Project Methodology**  The Project will utilise a *Mixes Research* Methodology, which combines *Qualitative* and *Quantitative* research approaches. This will help to clarify the opinions of the target audiences on feasibility and viability of the proposed mobile application.  The *Quantitative* approach will be used in carrying out a *Survey* to gather statistical data from the public and to clarify ways of purchasing handmade products in Ireland.  The *Qualitative* research will be caried out with *Structured Interview*s with craft makers to gather their opinions and insights of digitalisation of the artisan’s market.  The System Analysis phase will have an Object–Oriented approach where requirements will be analysed and structured in Conceptual Model with Use Case, Sequence, and Object Class Diagrams to have a better perspective on application’s functionality and business requirements.  Three Alternative Solutions will be presented (Low–End, Mid–Range, and High–End), and the most realistic one will be chosen to develop and complete the new mobile application. Feedback from the User Evaluation process will be gathered afterwords to have insight of the users’ satisfaction with the application and gather suggestions for improvements.  **1.5.2 Evaluation Criteria:**  When developed, the application prototype will be available on Google Play Store for users to evaluate it. The Online Evaluation Survey will be provided to gather feedback from target users. The aim of the Evaluation Questionnaire is to clarify whether the application is robust and fits the users` expectations and needs. It will follow such factors as:   * *Accessibility*: Evaluation of how accessible the application is to users, its compatibility across android devices at present, and in the future. * *Navigation*: Evaluation of how straightforward and intuitive it is for users to move through the application, with clear navigation menus, provided to help users’ easy transitions between screens. * *Design*: Evaluation of the Graphical User Interface, appraising aspects of appropriate colour scheme, fonts, font sizes, and pleasant elements of the interface. * *Content:* Evaluation of the quality and relevance of the information presented, its appropriateness for the intended purpose, together with its style and format. * *Security*: Evaluation of the security measures embedded in the application to protect personal data and sensitive financial information, ensuring that strict measures are implemented to cover potential security vulnerabilities. |
| **1.6 Project & Milestones & Deliverables:**  **1.6.1 The Project Milestones**  The Project Milestones are listed as follows:   * Generate ideas and conduct research to select a suitable Project topic. * Conduct initial Literature review, together with Case Studies on already existing marketplace mobile applications for artisans. * Establish Project’s goal and objectives and provide a detailed Project description and timeframe in drafting the Project Initial Specification and the Project Proposal. * Amend the Project Proposal, according to Supervisor’s feedback. * Utilize a *Mixed Research* approach for the Primary Research:   + Use *Qualitative* method to create and distribute *Structured Interview* questions to sample of local artisans and craftsmen in Limerick to gather information about technologies they use for trading crafted products and what they would like to see in the proposed for development mobile application.   + Use *Qualitative* method to create and distribute *Survey* questions to sample of members of the public in Limerick to gather their opinions on the need for the proposed application. * Conduct analysis of the Survey and Structured Interview results to evaluate potential feasibility for the Project and application’s functional requirements. Complete Thesis Ch.1. * Conduct in-depth Literature review on the chosen topic for the Project and complete Thesis Chapter 2. * Conduct System Analysis to structure the system requirements in Conceptual model of the application, choose suitable Software Development Methodology, and finalize Thesis Chapter 3. * Submit Thesis First draft to include Chapter 1, Chapter 2, and Chapter 3 for review. Create short video clip presentation as an Interim Report. * Gain necessary skills in Android Studio and its Development Environment and gain proficiency in Google Firebase. Improve programming skills in required development languages. * Design and Code the Graphical User interface (GUI) screens together with Data structures (application’s back-end), implemented with Google`s Firebase Database Management System. Finalize Thesis Chapter 4. * Select suitable Testing method for the developed application and conduct thorough Testing process with Testing Cases. Complete Thesis Chapter 5. * Perform User Evaluation, critically analyse its results, the Project success, and Personal achievements, provide Conclusions and Scope for future work on the Project; complete Theses Chapter 6. * Submit Thesis Second draft for review (Chapters 4, 5 and 6). * Prepare PowerPoint Presentation Slides. * Submit the Thesis and present the Project. | |
| **1.6.2 Project Deliverables:**   * Initial Project Specification and Description and Project Proposal draft. * Completed Project Proposal. * Progress report: Thesis First draft and video clip. * Progress report: Thesis Second draft. * Completed and collated Thesis. * PowerPoint Presentation slides. * Application’s Source Code.   **1.6.3 Project Timeframe & Gantt Chart**  *Include key timeframe, milestones, grant chart, identify risk and an RMMM matrix (Risk, Measurement, Monitor, Mitigation)*   |  |  |  |  | | --- | --- | --- | --- | | **#** | **Milestones** | **Deliverables** | **Duration** | | 1 | Gather ideas to identify suitable project topic | Project topic identified together with suitable research method | 2 weeks | | 2 | Perform Literature Review related to the chosen topic for Project Proposal Writing | Project Proposal draft | 2 weeks | | 3 | Amend the Proposal according to Supervisor`s feedback. | Completed Project Proposal | 0.5 week | | 4 | Identify samples of targeted audiences and create questions for Survey and Structured Interview | Survey Questionnaire and Structured Interview questions prepared to be distributed | 1 week | | 5 | Distribute Survey and Structured Interview questions to targeted audiences | Results of Structured Interview and Survey are gathered and analysed. Chapter 1 completed | 2.5 weeks | | 6 | Perform Literature Review;  Write Thesis Chapter 2 | Thesis Chapter 2 completed | 2 weeks | | 7 | Perform System Analysis and create Conceptual model; Write Thesis Chapter 3 and submit Thesis First draft | Thesis chapter 3 completed, and Thesis First Draft submitted | 3 weeks | | 8 | Create presentation video as Progress Report | The presentation video is submitted | 2 days | | 9 | Learn Android Studio & Google Firebase; Practice in improving coding skills | Become competent to code screens and functionality | 20 weeks (overlapping Tasks 1-8) | | 10 | Design and Code interface screens, data structure and desired functionality Write Thesis Chapter 4 | Desing and Coding phase are completed.  Complete Thesis Chapter 4 | 7 weeks | | 11 | Choose suitable Testing method and perform testing on the application | Fully tested application.  Thesis Chapter 5 completed | 2 weeks | | 12 | Perform User Evaluation, analyse results, estimate the project success, provide conclusion and scope of future work in Chapter 6 | Complete Thesis Chapter 6 | 2 weeks | | 13 | Submit Second draft of the Thesis | Thesis chapters 4,5 and 6 completed are submitted | 1 week | | 14 | Prepare Power Point Presentation; | Project Presentation slides are created. | 1 week | | 15 | Submit the completed Thesis; Present the Project | Thesis submitted and Project presented to examiners | 1 day |   **1.7 Project Risks:**   |  |  |  |  | | --- | --- | --- | --- | | **No.** | **Risk Description** | **Impact** | **Action** | | 1 | Time to learn new application programming languages | Critical | Dedicate time to learn programming languages early on with online tutorials | | 2 | Proper Project Time Management | Critical | Apply good time organisation to all Project tasks to complete the Project on time & schedule | | 3 | Data Loss | Critical | Backup data frequently on the Cloud and on separate disk storage devices | | |
| **1.8 Technical and Non-Technical Resources Required:**  **Hardware:**   * Laptop * Android OS based mobile phone   **Operating System:**   * Windows 10 * Android OS   **Software:**   * Android Studio /Android Studio Emulator/ Gradle * Google Firebase * HTML5/CSS/XML * Java/Kotlin/React Native * 3rd party Digital Wallet   **Tools, equipment, and other sources:**   * Internet * YouTube tutorials * MS Office * Udemy.com * Android Emulator * Google Forms * DRAW.io * Balsamiq * Integration with Google Maps   **People involved in the Project:**   * Project Supervisor – Sonia Zheleva   Artists, craftsmen, artisans in Limerick to participate in the Structured Interview and in testing of the developed application’s Prototype | |
| **1.9 General Public Survey Questionnaire**  The survey was created and populated over the Irish general population without specifying any particular society group. The Survey contains 19 Questions purpose of which was to gather information related to the purchasing hand made products, buying habits, most popular way to do so, and how people using their phones for making such a purchase. The Survey also used to specify of potential user interest in developing mobile application.  **1.9.1 Analysis of General Public Survey Questionnaire**  The Questionnaire having 32 responses in total (represented in Appendix A2), that involves various age groups that were ranged from 18 to 66+ (Question Q1 *“Please, specify your age group?*”). The majority of responses - 31.3% aged 26-35, the followed group 28.1% age of 18-25, third big group of age 36-45 is 21.9%, and 15.6% of responses are in age of 46 – 55 the rest of 3.1% delivered to 1 response of person age of 56 – 65.  In responses Question Q2 *“Please, specify your gender?”* it shows that from 100% or responses 56.3% male and 43.8% female.  Question Q3 *“Do you own a Smartphone or Tablet?”*, and Question Q4 *“If you have answered “Yes” to Q3, do you use mobile applications on your smartphone?”,* filtering people who are capable to use developed mobile application. And full 100% of answered that Yes on both questions.  On Question Q5 *“Do you like to buy (or intend to buy in near future) handmade arts and crafts products?”* , 78.1% of answers is yes and 21.9% is no. The question is having the same purpose as Question Q3 and Q4. And it`s narrows potential people of interest.  Question Q6 *“If you have answered “Yes” to Q5, how often do you make such purchases?”* Contains 27 responses major 48.1% of people responses as Sometimes, second is 25,9% not often at all, 18.5% often and 2 responses with 7.4% pointed as very often. Answering this question helps to understand potentiality of the developed app.  Question Q*7 “What type of hand-made products do you purchase?”* helps to clarify what categories of products are most likely to be looked after and what need to be implemented in interest of users. 19 responses, the biggest group of 67.9% is Home Decoration, 13 answered as Jewellery, 12 – responses as Cloth, 7 answers of Paintings, 3 answers as Pottery, Furniture and Other (Handmade Botanic Perfumes, used electronics, Food, home baked goods, hot souce – that represents in Question 7A) and 1 answer of Scultures.  Question Q8 *“Where do you most often purchase arts & crafts products from? (Please, select all that applies.)”* 27 responded in numbers, where most 14 is at weekend and Community markets & gatherings, 11 answered Online using Websites/ Webapps), and 2 options both having 7 responses At Art Gallery Shops and Online (using mobile | |
| application(s)), 1 painted as Other however doesn`t intent to specify in Question 8a (contains 0 responses).  For Question Q8B *“If you have selected option “Online (using websites/webapps)”, or “Online (using Mobile applications)” to Q8, please provide the name of the website and its URL/ the name of the mobile application”*, 13 people answered with most of 5 as mention of Amazon, next with 4 people mention is Etsy, 2 placed for Ebay, and 1 given to Facebook marketplace, Google.com, Instagram, and Temu/Shein.  With Question Q8C *”What features/functionalities do you like most in such an application(s)?”* 12 Responses and Most of them clarify to Ease in navigation and easy in use, stating that proper UI is very vital and important for mobile applications. Second of importance is relevance of listed content.  For question Q8D *“If you have not selected option “Online (using Mobile applications)” as an answer to Q8, would you consider making purchases of art and crafts products over a mobile application?”* 66.7% of 21 responses answered Maybe and rest 33.3% as yes. Answer “No” contains 0 of answers.  On Question Q9 *”Would you be interested in using a specially designed mobile application as a convenient platform to connect local artists/craftsmen/artisans, showcasing their unique hand-made products, with potential clients like yourself?”*, 51.9% of despondence chooses “Yes”, 44,4% maybe and 1 response (3.7%) placed “No”. Together with Question Q8D shows the people interest in the mobile application to purchase hand made products.  For Question *Q10 “If you have answered “Yes” or “Maybe” to Q9 above, what features/functionalities would you like to have in such an application? (Please, select all that applies.)”*, that state public opinion about the features and functionalities that are will be implemented in mobile application contains 26 responses.  All of Features contains 69% and above – showing, that all listed are vital in implementation and public concerned about it. The most popular in select *is “Easy navigation”* – 24 (92.3%), second but not least important *“Security of personal information”* with 21 responses (80.8%), 73.1% of people stated that *“Safe and secure financial transactions”* important for them, and 69.2% selected *“Good interface and Design”*.  According to the desired Functionalities the distribution of answers much widely. Most of responses 21 - 80.8% of total responses, pointed *“Provide secure online payments by use Digital Wallet”.* 73.1% of respondence selected *“Select product(s) to place an order.”*, the functionality of *“View Google Maps with pins of artisans/craftsmen in the user’s vicinity.”*, have 17 responses -65.4%. People with quantity of 16 – 61.5% selected 3 functionalities evenly *“Online registration for first time users”, “Provide Feedback & Ratings for Products*  *and Services obtained*.” and *“Secure login with re-set password option”*. Functionalities such as *“Ability to select a pin on the map and view artisan`s details and listing of available categories of crafted products.”, “Receive Invoice for Payment of Accepted Order”* and | |
| *“Make a Pre-order, requesting a product customisation.”* all 3 are sharing same quantity of answers – 57.7% which is 15 responses. The *“Receiving Notification of Order Acceptance/Order Rejection”* was selected 14 – 53.8% times. The number of 13 choses 50% was stated to *“Receive push notification form the chosen artisan about availability of new crafted products or available discounts.”.* To *“View Calendar with upcoming events and details.”* was stated 12 responses. And *for “Creating and funding own Digital Wallet for secure payments.”* 11 responses were given. The option “*Other*” obtains 0 responses. That`s why for Question Q10a *“If you have selected option “Other” as an answer for Features/Functionalities to Q10 above, please specify:”* have 0 answers either.  Nevertheless, general public have different way to prioritise the features and functionalities for developing perspective they are evenly important and need to be taken in serious concern.  The final Question of the Questioner Q11 “Would you recommend such an application to friends and colleagues to use?” have 0 of negative answers “No”, 76.9% from 26 people responded “Yes” and 23.1% as “Maybe”. Realising that responses can state that project is having way to be and have potential users. | |
| **1.10 Local Artisans Structured Interview**  Structured Interview has been developed and spread over Irish artisans and gallery shops management. The Interview have 19 questions, the purpose of which to collect information from craft makers and sellers about they products, way of sale, marketing, and visibility. It also helps to gather information and understanding from perspective of business user of developing application. Such gathered information will help to achieve developing goals.  The Structure Interview had 5 responses (questions Q1 – Q4) from different places and organisations:   * Dr Soo Ling Howard – home décor artisan * Derrick Amrein – director of Oak and Chisel Limerick * Annet Mac Connell – home decoration artisan * James Kearney – Printmaker, Visual Artist. * Simon Coe – off grid crafter   **1.10.1 Analysis of Artisans Structured Interview**  On question Q5 *“What category of arts and crafts products are you creating? (Please, select****all****that applies.)”,* with 5 responses, 3 was given to *Home Decoration*, 2 *Paintings*, 2 *Furniture*, 2 stated as *Other*. Unfortunately, none of despondences selected “*Jewellery*”, “*Sculptures*”, “*Pottery*” or *“Cloth”*. Even though, all of given categories should be implemented in the developing application.  For question Q5a *“If you have selected option "Other" as answer to Q5, please specify:”*, answered as *Quilts* and *Photography and Printing.*  On Question Q6. *“Do you sell your own arts & crafts products?”,* 80% of responded people 4 answered “Yes” and 1 answer was given as “No”  To question Q7 *“In your opinion, is selling completely offline an effective method today?”,* 60% - 3 answered yes and 2 (40%) – maybe.  For question Q8 *“What method(s) do you use to advertise your arts & crafts products?”,* major answers of 4 were given to *“Offline events”*, next after with 3 responses *“Own Website”,* *“Social Media”* together with “*Close people’ recommendations/word-of-mouth”* share same quantity of answers – 2, and 1 response was given to 3 ways of marketing such as *“Newspapers Adverts*”, “*Online Blog”* and *“Online marketplace”*. No one choose ”*Mobile application*“ and “*Other*” options. Because of this for question Q8a “*If you have selected option “Other” as an answer to Q8, please specify:”* has no responses either.  To question *“If you have selected options “Own Website”, “Social Media”, “Online Blog”, “Mobile application”, please provide the name/URL link.”*, 4 responses was given, such as: “*http://kreatifhands.blogspot.com/”*, “*Instagram, oakchisel.com*”, “*Jameskearneyprints.com*”, *“@stufffromglenduff on insta*”  For question Q8C “*If you****have not****selected options “Own Website”, “Social Media”, “Online Blog”, “Mobile application””,* as an answer to Q8, do you know of any ***online application,*** used as a platform to sell arts & crafts, like your own products?” with 3 answers 2 *“Yes”* and 1 “*No”*  On question Q8D. *“If you have answered “Yes” to Q8C above, please provide the name/URL link, of such an application.”,* 1 response was state *“Done Deals”*  For question Q9. *“Would you be interested in using a specially designed mobile application that can bring together on****one platform****as an online marketplace, local artists/craftsmen/artisans (like yourself) in Limerick from one side, and customers from the public, from the other side?”,*  On question Q10 *“If you have answered “Yes” or “Maybe” to Q9 above, what features / functionalities would you like to have in such an application? (Please, select****all****that applies.)”*, with 5 responses for features all 100% states *“Easy navigation”*, another listed feature “Good interface design” and “Security of personal information” both were selected 4 times – 80%. No one selected “Other”.  In relation of functionality 80% responded to *“Offline registration (to prevent online personalisation)”, “Secure Login with re-set password option”*, *“Artisan Profile Creation, Product Listing and Updates”* and *“Order Management (View List of submitted Customer Orders, Send Notification of Order Acceptance/Rejection (in case of Order Acceptance – send Invoice for Payment to the Customer), View Notification of Customer’s Invoice Payment)"*. Another group share same quantity of being answered 60% - *“Promotion and Marketing tools”, “View Feedback & Rating from Customers for Products and Services obtained”,* *“Artisan Community Forum”*. The “*Other*” option was not selected by anyone, it leads to no responses to Question Q10A *“If you have selected option “Other” as an answer for Features/Functionalities to Q10 above, please specify:”.*  For question Q11 “In your opinion, could such a mobile application increase your customer base and the sales of your crafted products?”, was given 0 negative responses, 80% answered as “Maybe” and 20% as “Yes”.  To question Q12 “ If you have answered “Yes” or “Maybe” to Q11, would you consider such an application to be your primary *trading* platform (*online marketplace*) for your arts & crafts products?”, 60% stated as ”Maybe” and 40% - “No”.  On question Q13 *“Would you recommend such a mobile application to your friends/other artists/craftsmen/artisans to use?”* no negative responses were obtained, 60% placed as *“Yes”*, 40% - stated as “Maybe”. Together with Q12 and Q11 clarifies potential business users of the developed mobile application. | |
| **1.11 Chapter Summary**  Artisans and hand made products are have big value for local community and culture. Increasing of popularity such of products make positive impact on society. Artisans in Ireland facing issue of limitation in being visible and have access to global market. The proposed mobile application can help to communities and artisans being more into contact with each other.  The next chapter provides comprehensive Literature review on Local Artisans and Market of Hand Made Products, including laws of data privacy in Ireland, historical perspective on mobile applications, android market and Case Studies of familiar existing mobile applications. | |
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| APPENDIX A1: Gantt Chart of the Project |
| APPENDIX A2: Graphical Representation of the General Public Survey Results  Forms response chart. Question title: Q1. Please, specify your age group?. Number of responses: 32 responses.  Forms response chart. Question title: Q2. Please, specify your gender?. Number of responses: 32 responses.  Forms response chart. Question title: Q3. Do you own a Smartphone or Tablet? . Number of responses: 32 responses.  Forms response chart. Question title: Q4. If you have answered “Yes” to Q3, do you use mobile applications on your smartphone?. Number of responses: 32 responses.Forms response chart. Question title: Q5. Do you like to buy (or intend to buy in near future) handmade arts and crafts products? . Number of responses: 32 responses.Forms response chart. Question title: Q6. If you have answered “Yes” to Q5, how often do you make such purchases?. Number of responses: 27 responses.Forms response chart. Question title: Q7. What type of hand-made products do you purchase?  (Please, select all that applies.). Number of responses: 28 responses.    Forms response chart. Question title: Q8. Where do you most often purchase arts & crafts products from? (Please, select all that applies.). Number of responses: 27 responses.    Forms response chart. Question title: Q8B. If you have selected option “Online (using websites/webapps)”, or “Online (using Mobile applications)” to Q8, please provide the name of the website and its URL/ the name of the mobile application:. Number of responses: 13 responses.    Forms response chart. Question title: Q8D. If you have not selected option “Online (using Mobile applications)” as an answer to Q8, would you consider making purchases of art and crafts products over a mobile application?. Number of responses: 21 responses.Forms response chart. Question title: Q9. Would you be interested in using a specially designed mobile application as a convenient platform to connect local artists/craftsmen/artisans, showcasing their unique hand-made products, with potential clients like yourself?. Number of responses: 27 responses.Forms response chart. Question title: Q10. If you have answered “Yes” or “Maybe” to Q9 above, what features/functionalities would you like to have in such an application? (Please, select all that applies.). Number of responses: 26 responses.Forms response chart. Question title: Functionalities:. Number of responses: 26 responses.  Forms response chart. Question title: Q11. Would you recommend such an application to friends and colleagues to use?. Number of responses: 26 responses. |
| APPENDIX A3: Graphical Representation Local Artisans Structured Interview    Forms response chart. Question title: Q2. Are you a self-employed craftsman/artisan/artist?. Number of responses: 5 responses.Forms response chart. Question title: Q5. What category of arts and crafts products are you creating? (Please, select all that applies.). Number of responses: 5 responses.Forms response chart. Question title: Q6. Do you sell your own arts & crafts products?. Number of responses: 5 responses.Forms response chart. Question title: Q7. In your opinion, is selling completely offline an effective method today?. Number of responses: 5 responses.Forms response chart. Question title: Q8. What method(s) do you use to advertise your arts & crafts products?  (Please, select all that applies.). Number of responses: 5 responses.  Forms response chart. Question title: Q8C. If you have not selected options “Own Website”, “Social Media”, “Online Blog”, “Mobile application”, as an answer to Q8, do you know of any online application, used as a platform to sell arts & crafts, like your own products?. Number of responses: 3 responses.Forms response chart. Question title: Q9. Would you be interested in using a specially designed mobile application that can bring together on one platform as an online marketplace, local artists/craftsmen/artisans (like yourself) in Limerick from one side, and customers from the public, from the other side?. Number of responses: 5 responses.Forms response chart. Question title: Q10. If you have answered “Yes” or “Maybe” to Q9 above, what features / functionalities would you like to have in such an application? (Please, select all that applies.). Number of responses: 5 responses.Forms response chart. Question title: Functionalities. Number of responses: 5 responses.  Forms response chart. Question title: Q11. In your opinion, could such a mobile application increase your customer base and the sales of your crafted products?. Number of responses: 5 responses.Forms response chart. Question title: Q12. If you have answered “Yes” or “Maybe” to Q11, would you consider such an application to be your primary trading platform (online marketplace) for your arts & crafts products?. Number of responses: 5 responses.Forms response chart. Question title: Q13. Would you recommend such a mobile application to your friends/other artists/craftsmen/artisans to use?. Number of responses: 5 responses. |