**IMTSquare Company**

**AnyChange Software**

**Vision Document**

**v2.0**

Revision History

| **Date** | **Version** | **Type** | **Description** | **Prepared by** | **Checked by** |
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| 22/03/2023 | 1.0 | IFC | Preliminary draft | IMT2 Project Team | IMT2 QA/QC Team |
| 28/04/2023 | 1.1 | IFC | Secondary draft | IMT2 Project Team | IMT2 QA/QC Team |
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|  |  |  |  |  |  |

**IMTSquare - AnyChange software**

**Vision**

# Introduction

The objective of this document is to define the fundamental objects and reasonings to IMTSquare’s new software project, namely AnyChange. This is the primary vision document that describes the relevant aspects. Section 2 describes project and product positioning. Section 3 contains information about stakeholders and users. Needs and features are discussed in Section 4 and general requirements planned in Section 5.

# Positioning

## Problem Statement

Since 2000, the world economy has grown drastically. However, this growth has not been linear and stable. There have been many economic crises in which even the strongest economies took strong hits, e.g., dot-com bubble, mortgage crisis, effect of pandemic, shift in global politics and power balance and so on. Accordingly, the average middle-class household consumer is the largest group that has been most affected with such crises and inflation waves in this century, based on the change of their socioeconomic levels and corresponding lifestyles. It is reported in many studies that nominal gross domestic product per capita (GDPPC) has decreased dramatically in Turkey to the inflation trends just in 2022. Same arguments are valid in almost all countries in the world, yet some experienced lighter impacts.

E-commerce platforms brought many advantages to provide consumers good information about prices of various products in the market. However, they are also vulnerable to price manipulations by big companies which use artificial discounts to attract customers, who in turn are drawn to buy products with a less discount rate than advertised. Similar techniques can also be employed by smaller companies which change specifications of an existing product by keeping the same price, claiming false pretenses under protection against inflation. Hence manipulations regarding not only price but product specifications are also of concern, in which such platforms cannot automatically distinguish between versions and types of products and a clear price/performance comparison cannot be made.

In this situation the only remedy is to provide consumers good intelligence and correct information about only the products that they are interested in, and to inform them whenever there is a change in price and product specification. By this, customers would be more conscious about the consumer prices in everyday markets.

Sellers and e-commerce platforms which do not use and/or allow these kinds of price and specification changes will also have the upper hand in competition by getting to be known more and by the increase in their reputation.

| The problem of | irregular price and specification changes negatively affecting household economies |
| --- | --- |
| affects | consumers |
| the impact of which is | consumers not being able to perform healthy price-performance comparisons |
| a successful solution would be | a software that lets consumers gain information about product price and specification changes |

| The problem of | irregular price and specification manipulations negatively affecting sellers’ that do not take part in such tactics, i.e. sellers’ conducting fair business practices |
| --- | --- |
| affects | sellers |
| the impact of which is | sellers not manipulating prices and specifications are not profiting from this policy |
| a successful solution would be | a software that lets sellers claiming no manipulation on price and specification change for a period of time profit from this policy, moreover providing transparency about reasons and impacts of such changes |

| The problem of | irregular price and specification changes by subscribers providing the need of rigorous controlling and checking for fair business practices |
| --- | --- |
| affects | e-commerce platforms |
| the impact of which is | e-commerce platforms employ a vast task force just to check these kinds of practices |
| a successful solution would be | a software that lets e-commerce platforms to inspect their subscribed sellers more efficiently |

## Product Position Statement

IMTSquare Co. intends to develop a software, AnyChange, that informs customers about changes in product prices and product specifications instantaneously. This software will also be used by sellers who claim to protect their customers against inflation by providing price change information regularly. This will give them the informed customer base they aspire to have. In this circumstance, it is considered to be a win-win for both the conscious buyers and the sellers. Ordering and delivery e-commerce platforms are also targeted. These companies employ a vast amount of personnel who are responsible for checking sellers’ prices and specifications continuously, against unfair and excessive price and specification changes. IMTSquare’s new software is planned to reduce the relevant workload immensely.

AnyChange is an informatory platform that can be applied to many consumer products that are mainly categorized as fast-moving consumer goods (FMCG). Being essentially as a web scraping tool, it’s also planned to include specific selection of products of interest, customizable alarms, and so on.

Competitive tools and platforms employ a wider range of methods to scrape the web for the cheapest price but lack the functionality to detect and alarm the user of such changes. More importantly, they do not analyze product specification - which results in a lack of tools for price-to-performance comparison to users. Hence detection and alarming its customers against price and specification changes is AnyChange’s unique differentiator.

| For | consumers, sellers, e-commerce platforms |
| --- | --- |
| Who | more information and timely notification of relevant changes |
| The AnyChange software | is a web scraping and analysis tool |
| That | allows consumers and sellers to make more conscious decisions by methods stated above |
| Unlike | price comparison platforms and e-commerce platforms |
| Our product | price and specification changes are noted to relevant interested consumers and sellers which do not employ relevant manipulation techniques are promoted |

# Stakeholder Descriptions

## Stakeholder Summary

| **Name** | **Description** | **Responsibilities** |
| --- | --- | --- |
| Operations & Management | Management team / board responsible for sponsoring the project | Makes high-level decisions about the business case and direction of the software  Acting as the project sponsor  Ensuring proper resources are allocated for the project  Acts as a change control board for changes with more than a specified level of impact |
| Project team | Team carrying out the AnyChange software project | Project management with respect to unified process  Business case and requirements analysis  Architecting  Development  Testing |
| QA/QC team | Team carrying out relevant quality control and quality assurance activities | Performs predictive, preventive, corrective actions to ensure the product obeys customer requirements  Performs relevant actions in order to check and correct relevant processes that result in a product that obeys customer requirements |
| Customer support | Team carrying out customer excellence activities after software deployment | Collect customer feedback  Act on customer feedback  Ensure relevant queries are resolved  Acquire customer satisfaction metrics |
| Maintenance team | Team carrying out maintaining the software after deployment | Maintain the software on relevant operating systems and platforms  To this end work with project team until final acceptance |
| Consumers | Household consumers | Free/paid subscribers as users of the software  A selected group of consumers will be selected for beta testing |
| Sellers | Parties which sell a particular good, product, item and so on | Free/paid subscribers as users of the software  A selected group of consumers will be selected for beta testing |
| E-commerce platforms | Online commerce platforms on which sellers operate | Paid subscribers as users of the software  E-commerce platforms will be offered to beta test the software |

## User Environment

The user environment is foreseen to consist of several profiles according to their interests and intended uses as,

3.2.1 customers

3.2.1.1 consumers with free subscription

3.2.1.2 consumers with paid subscription

3.2.1.3 sellers with free subscription

3.2.1.4 sellers with paid subscription

3.2.1.5 e-commerce platforms with paid subscription

3.2.2 customer excellence team

3.2.3 maintenance team

3.2.4 project team

Tasks are not bound by the number of people in any group.

The task cycle is initiated once the users register/log in. The amount of time spent in each activity varies by type and/or subscription of the users.

The web scraping activities naturally cannot be used in any circumstance restraining data transfer such as aircrafts during operation and so on.

The initial version of the software is planned to operate as a web application (accessible from all web browsers).

The task cycle is concluded once the users suspend registration/log out.

# Product Overview

## Needs and Features

The needs and solutions for these needs (features) along with priorities and planned releases are captured.

Please note that “users” refer to consumers, sellers, and e-commerce platforms.

| **Need** | **Priority** | **Features** | **Release** |
| --- | --- | --- | --- |
| Access to full features, usability | 1 | Users can register/subscribe according to their needs | 1.0 |
| Monitor the price of the selected item via scraping | 1 | Users can see the current price of the product of their selection | 1.0 |
| Registration/subscription type change based on changing needs of the users | 1 | Users can change their subscription type | 1.0 |
| Usability via GUI | 1 | Users can use basic GUI | 1.0 |
| Getting guidance from help documents - FAQs | 1 | Users can navigate via help for FAQs | 1.0 |
| Notification upon price change | 1 | Users can be notified of price change | 1.0 |
| Analysis per basic historical data for prices | 1 | Users can track the price of the item daily as long as the link is active | 1.0 |
| Giving feedback about the software for the customer team considerations | 2 | Users can give feedback to customer excellence team | 1.0 |
| Analyze the price of the selected item based on several criteria | 1 | Users can perform relevant price analysis based on history and performance specifications | 2.0 |
| Usability via improved GUI | 1 | Users can use the GUI designed per their feedback to improve UX | 2.0 |
| Getting guidance from help documents - FAQs - advanced | 1 | Users can navigate via help with keyword search or topics | 2.0 |
| Notification upon specification change | 1 | Users can be notified of specification change | 2.0 |
| Selection of products of interest, and deselection of others | 1 | Users can be notified of a change based on their input of notification | 2.0 |
| Accessing to product reviews and getting more information from other users | 2 | Users can review and comment on products’ prices, specifications and so on | 2.0 |
| Analysis per advanced historical data for prices | 2 | Users can see advanced statistics as change percentage, trend data, averages, etc | 2.0 |
| Notification upon link change | 1 | Users can be notified of a change in the link of the product | 3.0 |
| Planning household economy based on prices | 2 | Users can compare their household income with the products’ price yielding purchasing power | 3.0 |
| Suggestion of price change timeframe - historical | 2 | Users can be informed about the future prediction of price changes based purely on historical price changes | 3.0 |
| Suggestion of price change based on AI - historical | 2 | Users can be informed about the future prediction of price changes based on AI on historical data | 3.0 |
| Suggestion of equivalent price calculation based on AI - specifications | 2 | Users can be informed about the equivalent price based on changes in specifications | 3.0 |

# Other Product Requirements

| **Requirement** | **Priority** | **Planned Release** |
| --- | --- | --- |
| Usability: Initial GUI should allow users no special training to get accustomed to | 1 | 1.0 |
| Scalability: 100 concurrent users without peak/nominal hours | 1 | 1.0 |
| Availability: Web application availability is planned to be 99.0% annually | 1 | 1.0 |
| Security: Web application should log off after 10 minutes of inactivity by any means | 1 | 2.0 |
| Deployment: Platform accessible on all web browsers | 1 | 2.0 |
| Usability: GUI should be based on extensive feedbacks from users | 1 | 2.0 |
| Scalability: 10.000 concurrent users, with an occasional peak of 15.000 concurrent users at 18:00-21:00 every day for web application | 1 | 2.0 |
| Scalability: 20.000 concurrent users, with an occasional peak of 30.000 concurrent users at 18:00-21:00 every day for web application | 2 | 2.0 |