



Digital Transformation Strategy





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AGENDA

ABOUT HOMETRUST

Services/ products,
situational analysis, pain
points, need for change

DIGITAL STRATEGY & IMPACT

From review website, to
engagement platform,
change management

DIGITAL TECH & PROTOTYPE

Providing transparency,
reassurance and a novel
customer experience

EVALUATION & CONCLUSION

Intended outcome,
feasibility, challenges

01

02

03

04

ABOUT US

We are a web-based community review site, offering advice and feedback from reviews for homeowners in hiring design firms.



Hometrust

OUR SERVICES



LATEST REVIEWS

Detailed feedback from homeowners with photos



INTERIOR DESIGNERS

Consolidated sortable list of ID firms with filter options



INSPIRATION

Projects & ideas, photo inspirations



RECOMMENDATIONS

Engagement quiz, assessing design style preferences



FORUMS

Discussion forums by topic, community FAQ



GUIDES

Renovation guides and articles providing advice

HOMETRUST PROFILE

INDUSTRY MARKET TRENDS - CONSUMER GROWING EXPECTATIONS

- ❖ Expansion of services
- ❖ Integration of artificial intelligence and machine learning
- ❖ Greater transparency

PAIN POINTS

- ❖ Incomplete, inaccurate reviews
- ❖ Lack of Transparency
- ❖ Balance of Demand and Supply



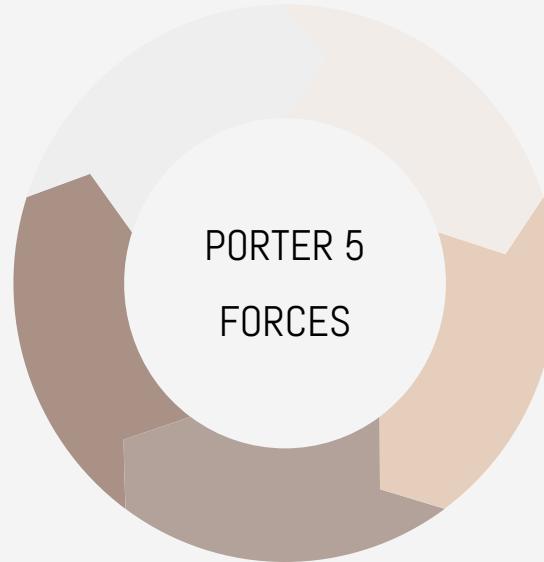
SITUATIONAL ANALYSIS

LOW THREAT OF NEW ENTRANTS

- ❖ High barriers to entry due to network effect, proprietary technology etc.

RIVALRY AMONG EXISTING COMPETITOR FIRMS

- ❖ High competition: CUBRO (IKEA), Renopedia, Home reno guru, Qanvast, Renonerds
- ❖ Rivalry expected to intensify with strong industry growth, low FC, and low exit barriers



HIGH BARGAINING POWER OF BUYERS

- ❖ Many buyers, no switching cost
- ❖ Limited service differentiation

MEDIUM BARGAINING POWER OF SUPPLIERS

- ❖ Market highly saturated
- ❖ Many lead generation channels available

LOW THREAT OF SUBSTITUTES

- ❖ DIY with e-commerce has price advantage, but learning curve is steep
- ❖ Freelance services prone to fraud & poor performance
- ❖ ID firms own digital experience is expensive and has limited outreach

URGENCY FOR CHANGE

- ❖ Highly competitive - need to attract consumers and suppliers, to sustain network effect
- ❖ Growing consumer expectations - add value to business through customer experience
- ❖ Increased emphasis on trust - improve transparency, and communication



DIGITAL STRATEGY

Reimagine business, reevaluate value chain,
reconnect with customers, rebuild business,



REIMAGINE BUSINESS

WHAT BUSINESS ARE WE IN?

ID-community-based-review-website to a One-stop renovation platform

Hometrust unique advantage comes from

- Network effect
- Complementary products/ service
- Data and customers

Both complementary products and network effect

- Community-based (network effects)
- Leverage to become leading platform by building complementary services - reviews, project management, 3D style generator, cost estimations etc.

DATA AND CUSTOMERS ARE CRITICAL ASSETS

- Hometrust can leverage on consumer data - design style preferences, frustrations, recommendations.
- Data network effect: value of data increases with more data - improve learning AI and algorithm

REIMAGINE BUSINESS

BUSINESS MODEL

- Asset-light business that creates value through experiences
- Reinventing the interior design experience by engaging customers to exercise creativity and experiment
- Transparency throughout the whole process



REIMAGINE BUSINESS

ECOSYSTEMS

- Platform revolution to connect and match relevant parties at low cost
- Build critical mass with 'freemium' business model for consumers, but pay for premium version to access more customised features
- Collaborate to share consumer data, and recommendations



REEVALUATE VALUE CHAIN

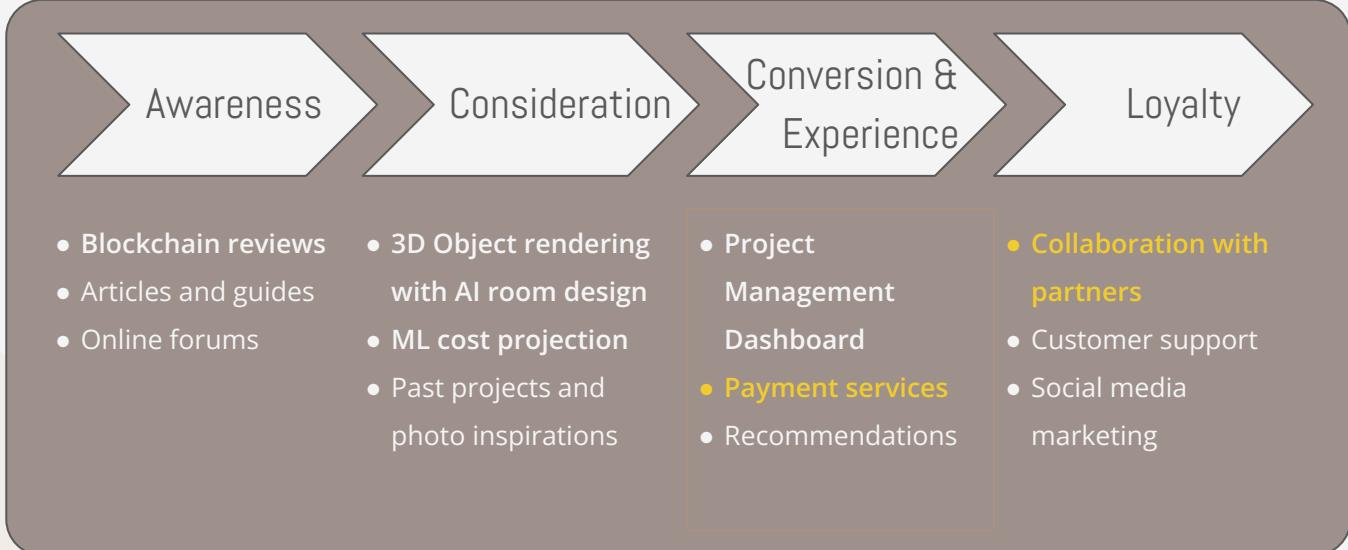


OPERATIONAL EXCELLENCE

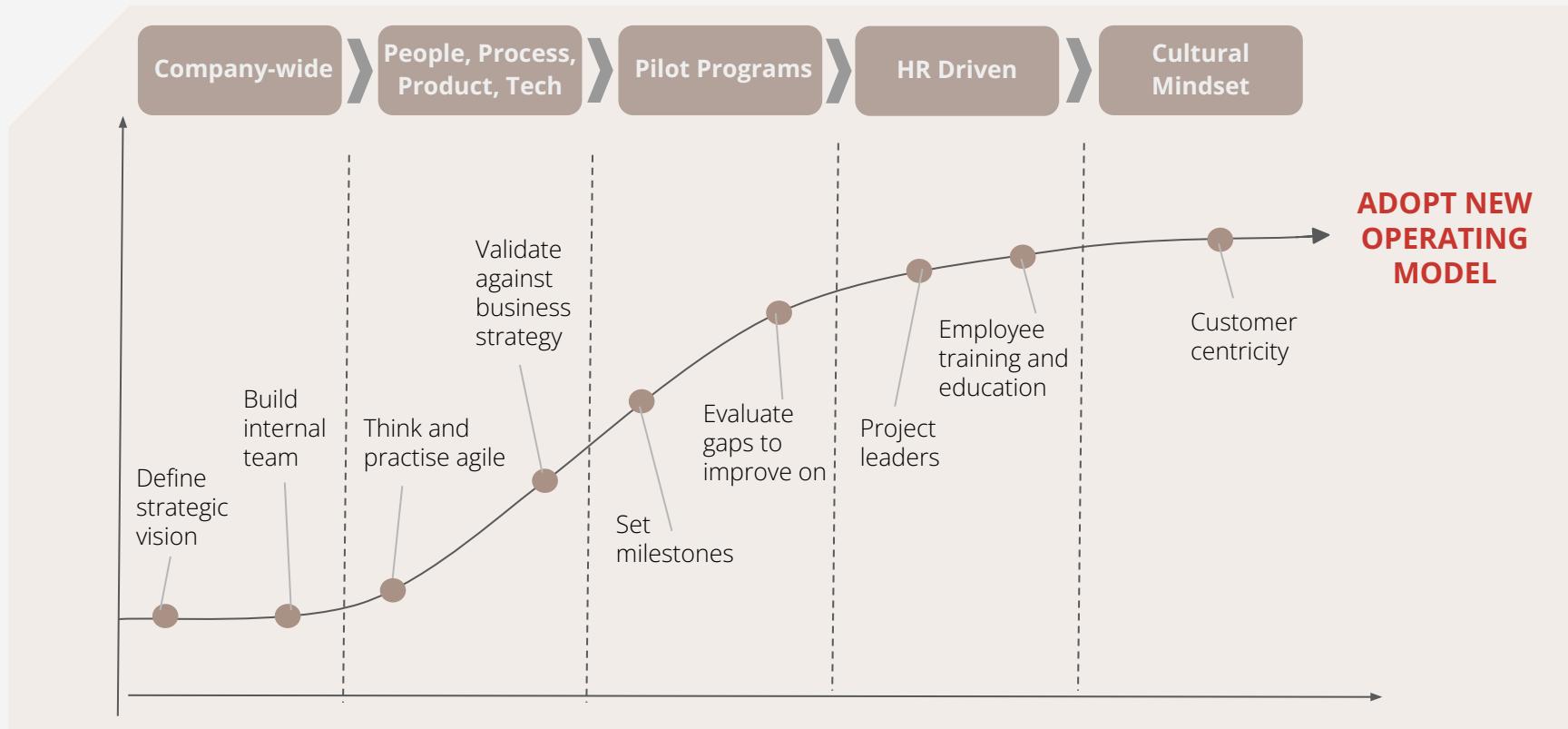
Leveraging new technologies: Blockchain, AI, machine learning, cloud, 3D object reconstruction, and smart contracts



CUSTOMER JOURNEY



REBUILDING ORGANISATION



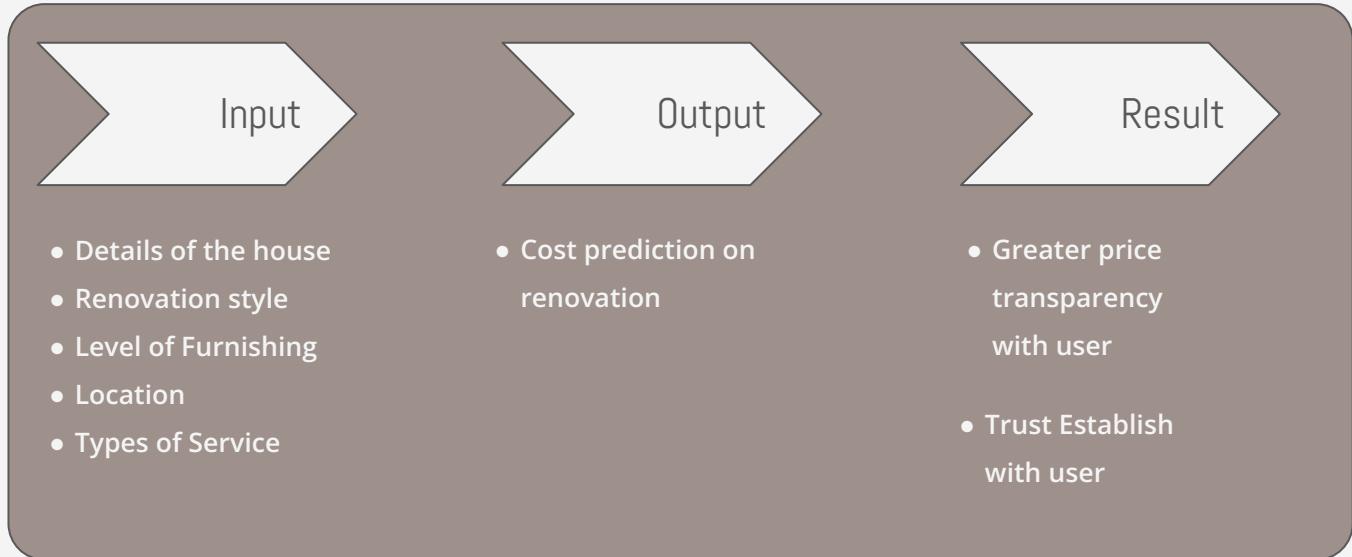
DIGITAL TECH & PROTOTYPE

Providing transparency, reassurance and a
novel customer experience



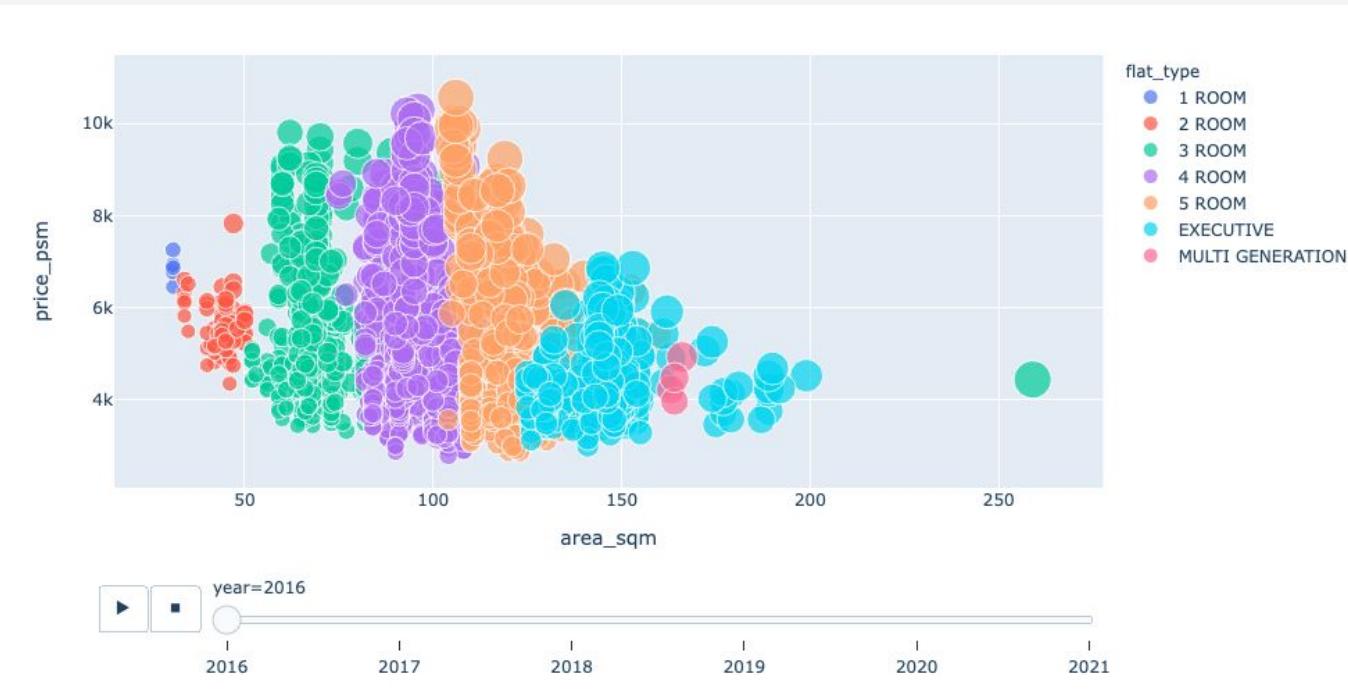
Hometrust

Machine Learning Cost Prediction



Exploratory Data Analysis

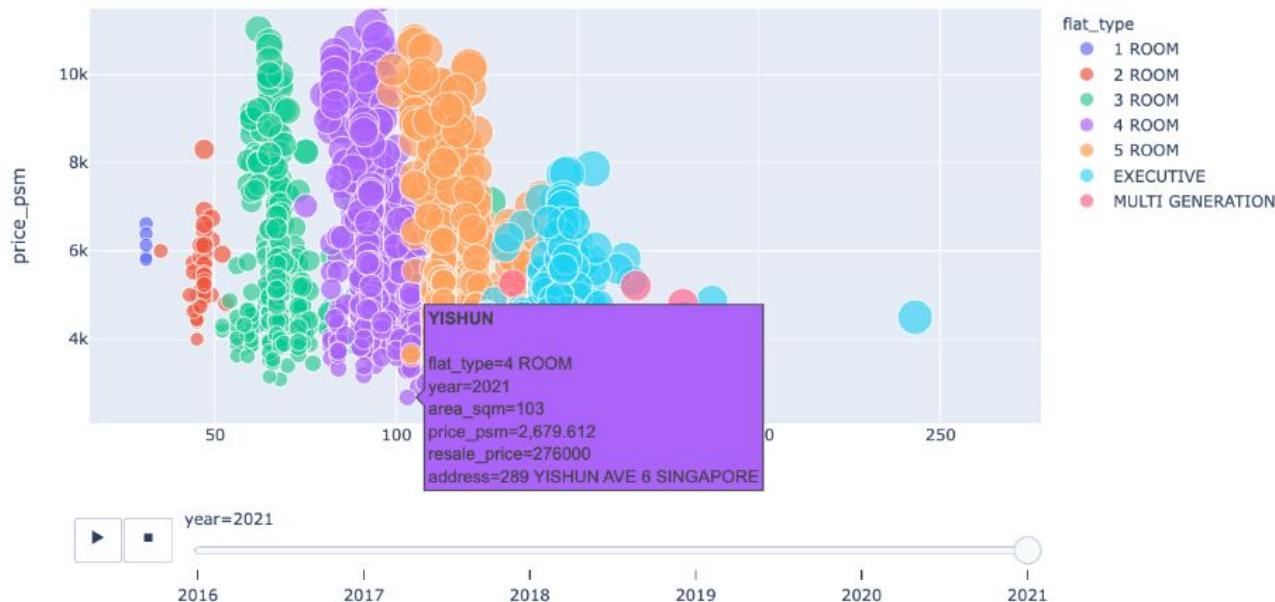
Time Series Graph



Insights

Exploratory Data Analysis

Time Series Graph



Insights

- ❖ Price_psm shifted upwards
- ❖ Area_psm tightened
- ❖ Clearer segmentation in price
- ❖ Outliers exist within the dataset

Exploratory Data Analysis



Boxplot of Group Values



Insights

- ❖ Outliers exist within the dataset

Exploratory Data Analysis



Boxplot of Group Values

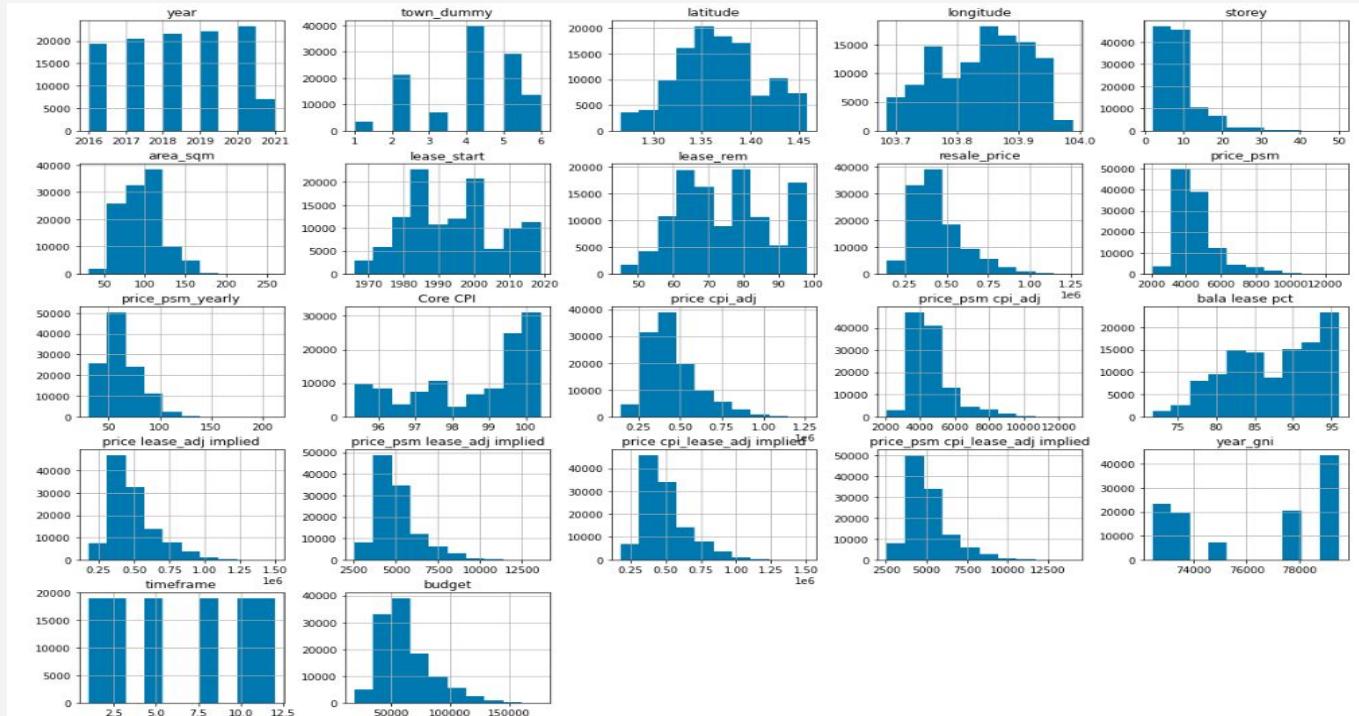


Insights

- ❖ Removed outliers

Exploratory Data Analysis

Histogram

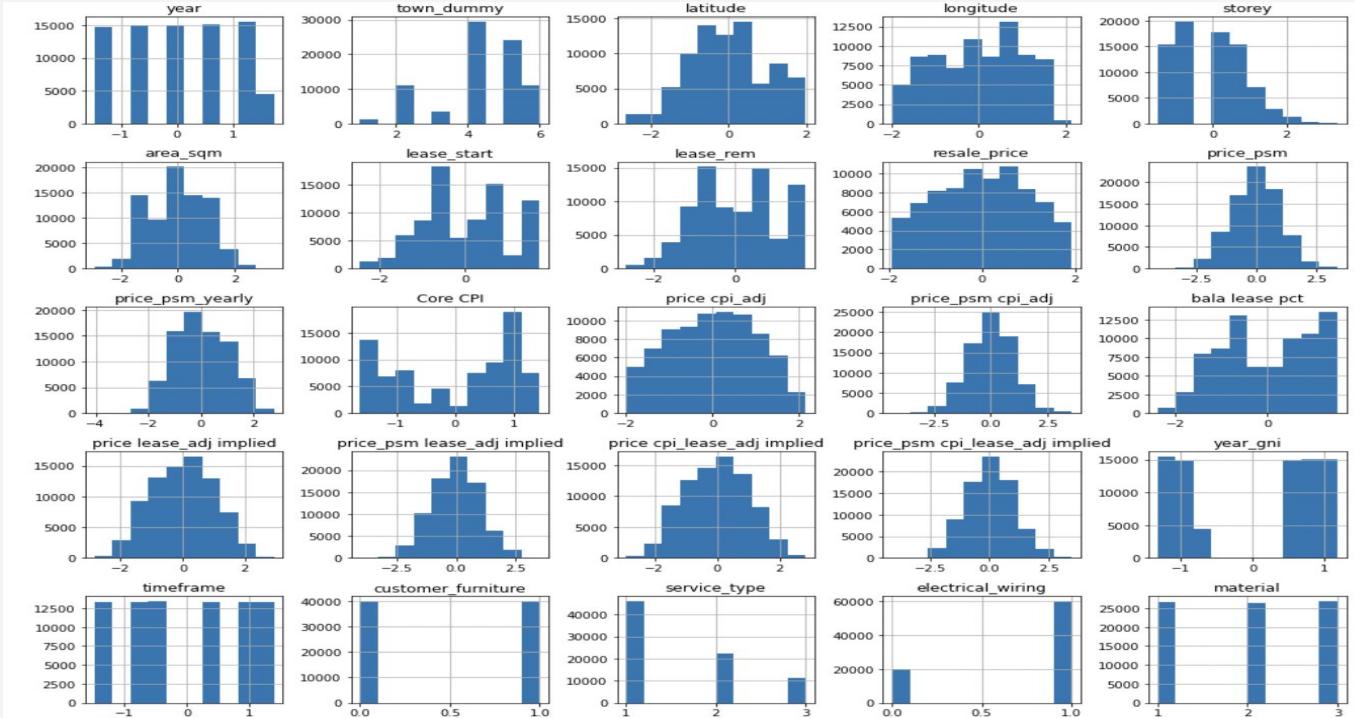


Insights

- ❖ Skewed Data
- ❖ Requires data transformation and standardization

Exploratory Data Analysis

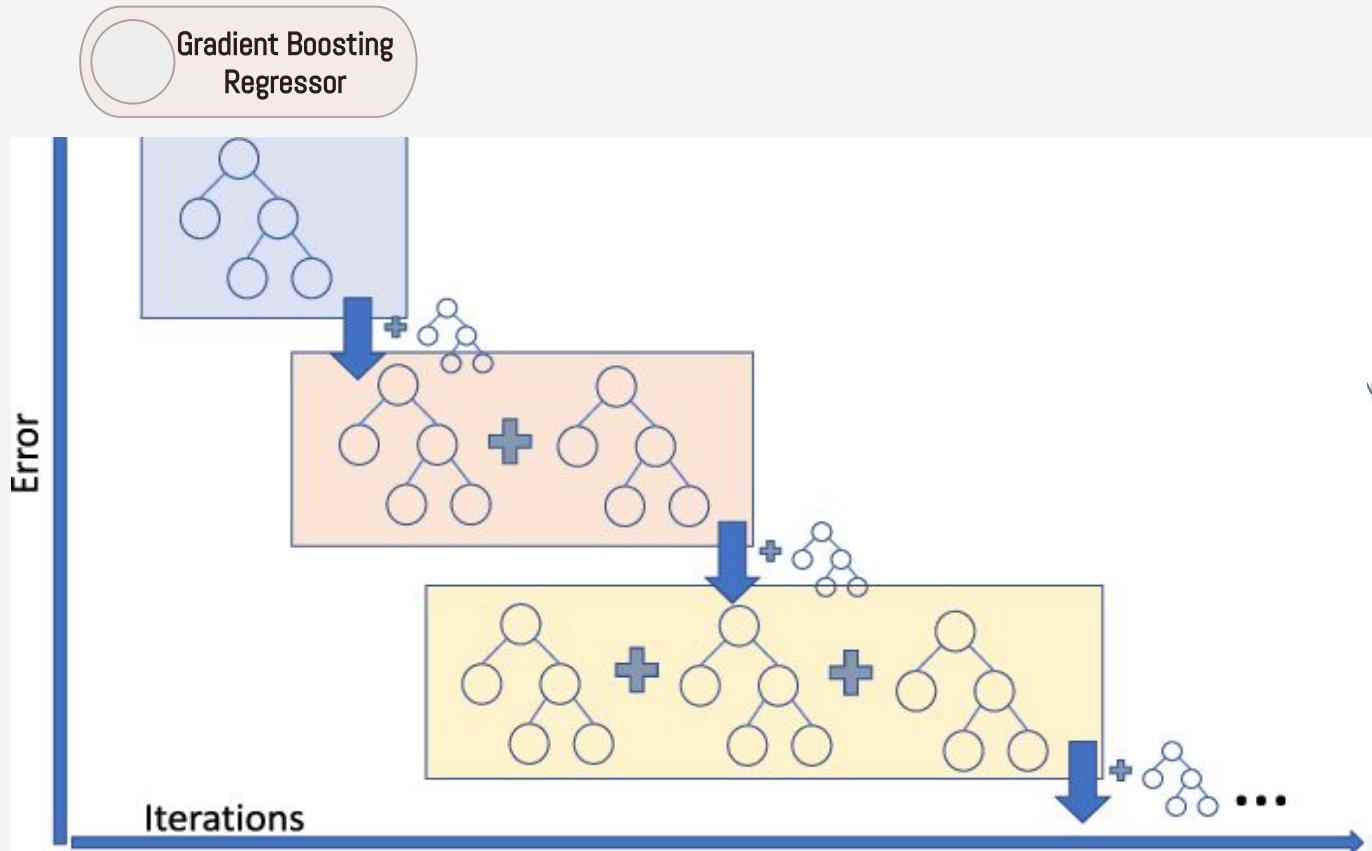
Histogram



Insights

- ❖ Scaled data using MinMaxScaler
- ❖ Encoded categorical data
- ❖ Standardized data that failed the Shapiro-Wilk test using Power Transformer

Exploratory Data Analysis



Insights

- ❖ Ensemble method
- ❖ Trains multiple weak model through decision tree and later combined for better performance

Exploratory Data Analysis



- Mean budget of \$53664.46
- RMSE of 274.14 with all data provided, 1% difference from Mean
- RMSE of 6441.61 with limited data provided, 12% difference from Mean
- Overall High Accuracy with good fit

Project Management & Blockchain

Putting the power of creativity back into the consumer's hands.



Hometrust

PAIN POINTS

LACK OF ALIGNMENT

- ❖ Customers lose track of which stage their renovation is at due to communication or frequently changing timelines



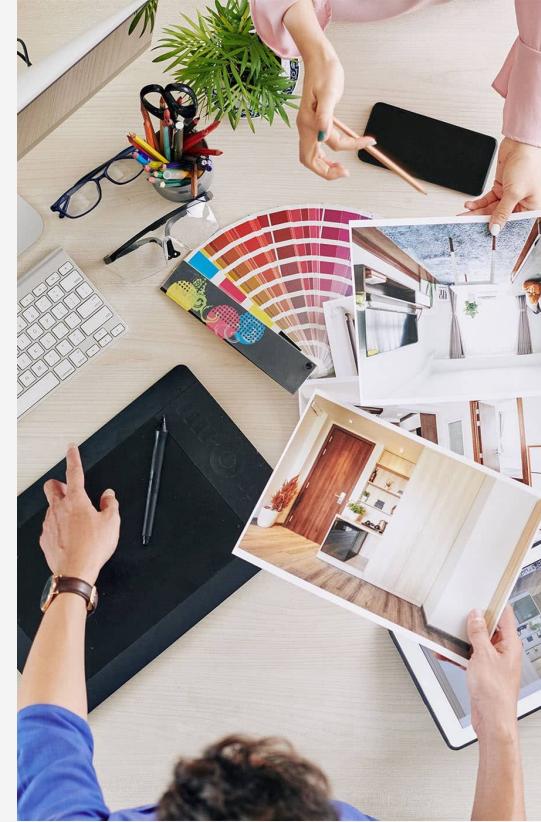
EROSION OF TRUST

- ❖ Fraudulent subcontractors, interior designers, and other parties involved erode trust for homeowners
- ❖ Lack of verified reviews to prevent this



LACK OF MANAGEMENT

- ❖ Updates and documentation are not organised due to it being hard copy or updated from multiple sources.



BLOCKCHAIN

SMART CONTRACT VERIFICATION

- ❖ Each review will be verified to ensure that there will only exist one such and prevent people from tampering

REVIEWS YOU CAN TRUST.

Our review system is built on a state-of-the-art blockchain-secured technology. What this means for you is that our reviews are 100% honest, truthful and we will not remove any reviews.



Vera Keh Tan
Unemployed

Blockchain certified review

"Working with XYZ Interior Design was an absolute pleasure. Their team listened to our ideas and offered creative solutions that truly transformed our space. We couldn't be happier with the results and highly recommend their services to anyone looking for a top-notch interior design team."

23/04/2018



Roberta
Genius, Billionaire, Playboy, Philanthropist,
 Blockchain certified review

"I recently used Interior Designer to help me update my living room and I couldn't be happier with the outcome. Their attention to detail and commitment to quality is evident in every aspect of the project, and I would definitely work with them again for future design needs."

22/04/2018



PROJECT MANAGEMENT

STAGE ORGANISATION

- ❖ Each stage is spanned across the days involved + tagged to the respective POC

PHOTO UPDATES

- ❖ Any stakeholders involved in the renovation process is able to send in photo updates

EASY ACCESS

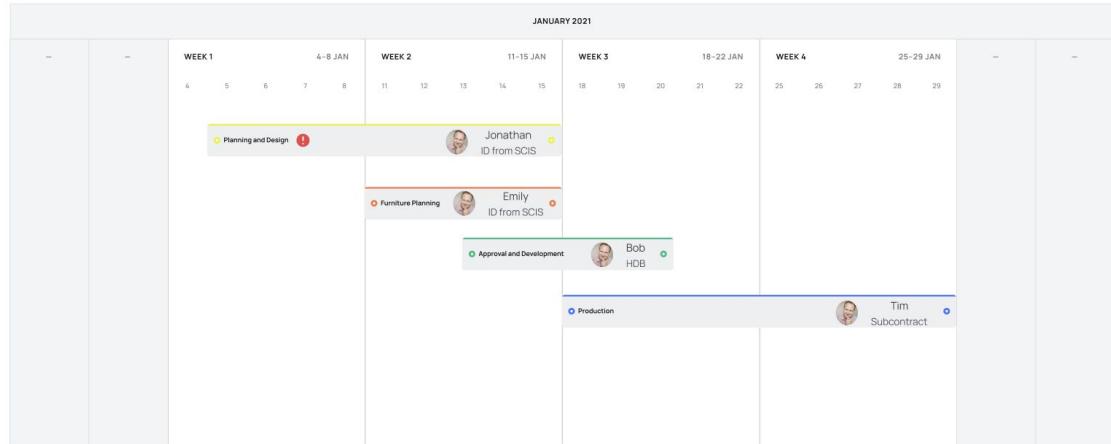
- ❖ By hovering over the POC on the stage, the customer can check their details like phone number, message for ease to contact them

Project Management

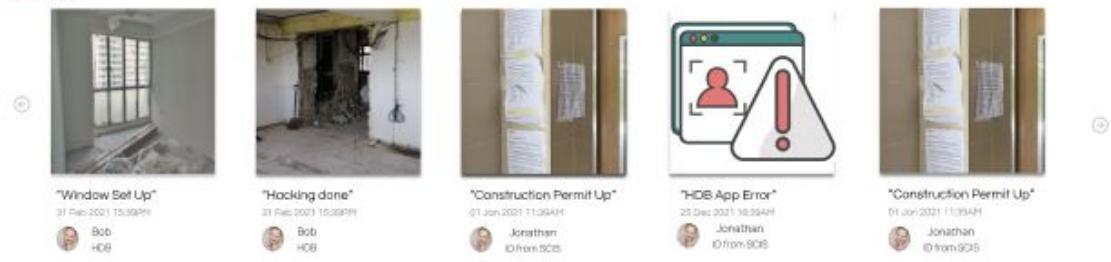
Holy smokes! You have one issue to review.

Past Current

Update



Updates



3D Style Generator

Putting the power of creativity back into the consumer's hands.



Hometrust

PAIN POINTS

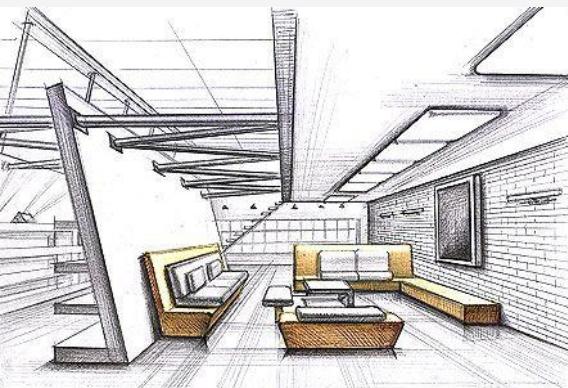
COSTS ASSOCIATED

- ◆ Interior designer come onsite to understand physical location and space.



COMMUNICATION OF IDEAS

- ◆ Average customer lacks the language to effectively communicate creative vision.
- ◆ Sketches are the primary form of communication, but creating them takes time.
- ◆ Initial sketches heavily influence final results.



SUNK COSTS

- ◆ Typical homeowner rarely engages multiple interior designers.



THE IDEAL SOLUTION

would...

BE A PORTABLE SOLUTION

- ❖ Allow customer to use mobile phones to scan the location and infer physical dimensions.

HAVE ZERO / LOW COSTS

- ❖ Encourage experimentation and avoid sunk costs
- ❖ Low barrier of entry for all

GENERATE ENDLESS POSSIBILITIES

- ❖ Allow customer to express creatively, quickly iterate and try many different looks

GENERATING ENDLESS POSSIBILITIES

through AI.

MIDJOURNEY

- ❖ Independent research lab focused on design, human infrastructure and AI.
- ❖ Bias towards painterly, aesthetically-pleasing images by default.
- ❖ Offers different aspect ratios and upscaling.

ISSUE

- ❖ Do not seem to respect physical constraint and space.
- ❖ Makes them impractical for actually planning how a room might look like.



STABLE DIFFUSION 2 DEPTH

respecting physical constraints.

DREAM TEXTURES

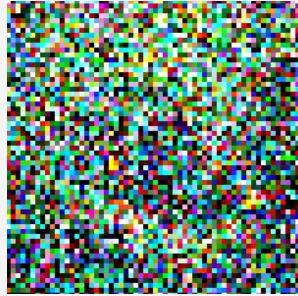
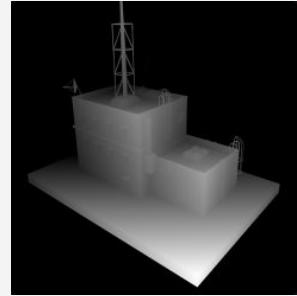
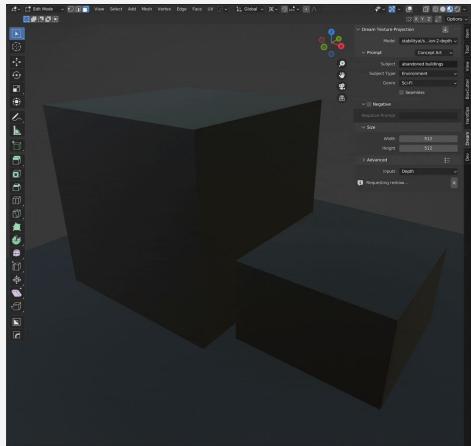
- ❖ Plugin for Blender, a 3D software that brings Stable Diffusion based AI.

STABLE DIFFUSION 2 DEPTH

- ❖ Starting with a given geometry, build and generate an image that is projected on the geometry.
- ❖ This allows us to respect the geometry and physical constraints of the space if it was modelled in 3D space.

ISSUE

- ❖ Average consumer does not know how to model their location in 3D.



MODELLING YOUR ROOM

not really.

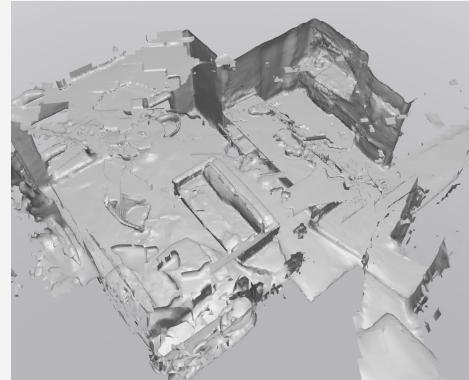
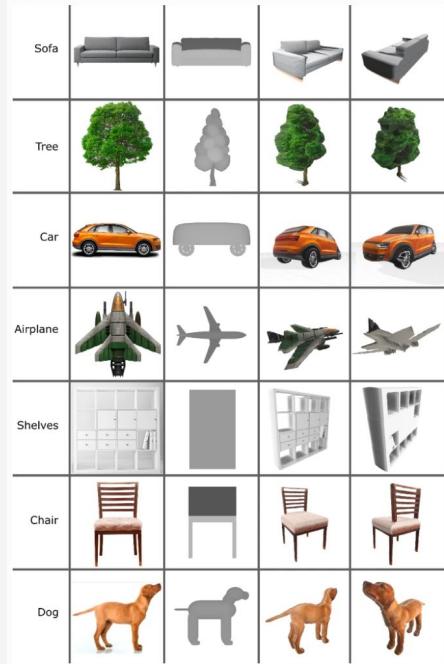
3D OBJECT RECONSTRUCTION

- ❖ Given an image, construct a 3D representation that captures the profile.

3D SCANNING WITH MOBILE

- ❖ Modern phones have 3D scanning capability.
- ❖ Using Apple phones LIDAR sensor, we can recreate entire rooms with ease.

Fig. 14



FULL FLEDGED SOLUTION

01

Taking a photo or scanning your phone.

02

Reconstructing physical environment in 3D space.

03

Provide prompts, uses geometry to
reconstruct and generate variations.

04

Endless possibilities of designs,
customized to the physical environment.

DIGITAL TRANSFORMATION



BUSINESS MODELS

Changes ID companies to a platform company that provides



INTERIOR DESIGNERS

Consolidated sortable list of ID firms with filter options



INSPIRATION

Projects & ideas, photo inspirations



RECOMMENDATIONS

Engagement quiz, assessing design style preferences



FORUMS

Discussion forums by topic, community FAQ



GUIDES

Renovation guides and articles providing advice

Conclusion

Intended outcome, feasibility, challenges



Intended Outcome

Gain market share through platform business model

MARKET LEADER

Customer's experience towards renovation digitalized and wholly shaped

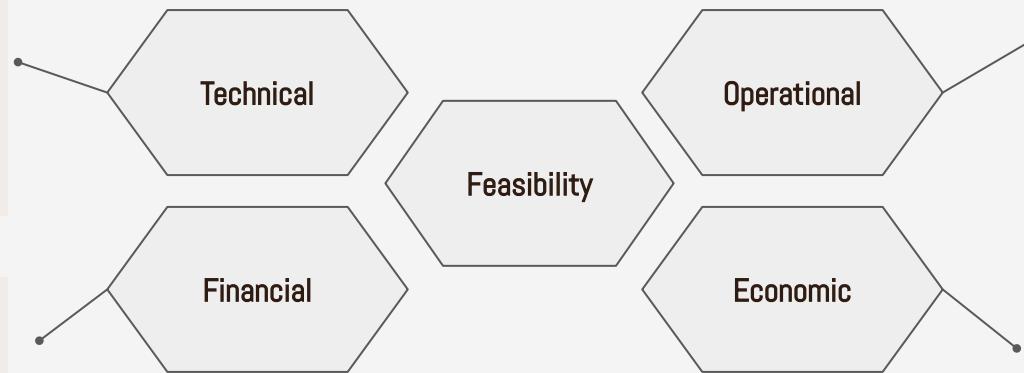
REVAMPED DIGITAL EXPERIENCE

Trusted partner between various stakeholders, bridging various needs collectively through one solution

BRIDGE BETWEEN STAKEHOLDERS

Feasibility

- ❖ Implementing data storage on cloud server
- ❖ IT Staff to manage technical upgrades



- ❖ Investments in Cloud infrastructure
- ❖ Increased Labour Cost

- ❖ Internal alignment between operational and technical team

- ❖ Growing industry with secure property landscape in singapore

CHALLENGES



CHALLENGES



SOCIAL INCLUSIVITY

- Gaining traction between various stakeholders involved to establish network effect
- Adapting various stakeholders into new digitalized experience

CHALLENGES



TECHNOLOGY CHALLENGES

- Data breach
- Technical glitch with 3D object rendering, project management dashboard, and cloud-dependent system

CHALLENGES



ORGANIZATIONS & GOVERNMENT

- Cyber resilience - training employees on utilizing technologies involved, digital habits, and incident response procedures
- Data governance - connected devices, data minimization, data permissions & access, and internal data classification

THANK YOU!