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Kshitij believes in a power of a good story. He believes that design is an excellent way through which, we tell our experiences, codified in aesthetics and beauty. His earlier research explored the intriguing concept of transforming users from mere consumers into active participants in the design process, effectively democratizing the entire design experience.

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REVITALIZING BRANDS THROUGH CO-DESIGN: A Case Study of HMT Enthusiasts groups

Kshitij Kumar, Shubhomoy Halder

Abstract

Co-design, also known as collaborative design, is a process where designers work together with end-users, stakeholders, and other experts – to create innovative, and sustainable solutions to complex problems. It is an inclusive and participatory approach that values the diversity of perspectives and experiences that each participant brings to the table. This project explores the potential of co-design and co-creation within online communities and focus/topical groups. The case study of various collaborations with HMT enthusiasts, after its formal closure – highlights the power of co-design to create unique, meaningful products that foster a sense of community and belonging among participants. It also provides some direction for the revitalization of the HMT brand. The research examines factors that contribute to the success of co-design projects, including factors like online groups, customer engagement and participation, and mass customization. The research also looks at various co-design frameworks, and ideals of co-design, as well as how they have impacted the users, not only in terms of creating solutions that were more coherent to their daily lives, but also providing an opportunity to voice and own an equal partnership- with the solution givers. Through literature review and case study analysis, the project highlights the importance of co-design – in creating social relationships between users and brands, which is beneficial for both (and all related stakeholders), in the longer term. By collaborating with

consumers and communities, brands can tap into new sources of creativity and expertise, leading to the creation of value for both the brand and its consumers.

Keywords: *Co-design, Online communities, Focus Groups, Mass Customization, Customer Engagement.*

Introduction

Hindustan Machine Tools (HMT) was once a prominent public sector brand in India. The brand kick started a new industrial phase in India, where it began to make manufacturing tools for our manufacturing, agro, and dairy industries. To direct consumers, the brand was, however more popular for tractors, and high-quality wristwatches. Through watches, HMT became a household name - a glowing symbol of quality, precision, and innovation. However, after the liberalization of the Indian markets, the brand struggled to maintain its position in the market. It began to lose its turf (as a no. 1 watch manufacturing brand in India) from new competitors entering the market, including a newly formed PPP brand between Tata Sons, and TIDCO – Titan.

As these global watch manufacturers began to flood the Indian market with innovative, newer designs – which had a perceivable better quality, HMT struggled to keep up with the competition, and this in turn led to its rapid downturn.

Despite several attempts to revive the watch division in the 2000s, HMT's watch manufacturing division eventually closed down in 2016. The closure of the iconic brand was a sad moment for many Indians who grew up wearing HMT watches. It seemed as if the HMT watches were destined to be forgotten, from the memories of the Indian masses.

Because of their popularity, several hmt fan groups had formed, on various social media platforms. In these groups, members would discuss their purchases, their watch collection, aspects of different designs that were prevalent in the HMT catalog, and movements used in various models etc. When the news (of the shutdown of HMT watch division) came up, a group of HMT enthusiasts came together to collaborate with the brand on a series of group projects, HMT White Pilot, and a new concept – a 39 mm dress watch named - Airavata.

Through the process of (*what we recognize as*) co-design, the group members were able to bring new life to the brand they loved so much. They were able to take their ideas and turn them into tangible projects that they were proud to wear and show off to others. As a result, they created value not only for themselves but for the HMT wristwatches as well. While the watch division was closed formally, HMT recollected all their left-over stocks, and structured the business that focused on small steps, and smaller (but recurring) profits. HMT started to retail its watches through its website, which are still bought by collectors, and HMT enthusiasts.

The success of these collaborations is a testament to the power of co-design within such online communities, or focus groups. By working together with the brand, these enthusiasts were able to tap into their collective knowledge and creativity to create something truly unique. The result was a series of wristwatches that were not only beautiful but also 'unique'. - An element that was not present in their previous catalogue.

The impact of these collaborations also went beyond just the products themselves. They also helped to foster a sense of community and connection among the group members. The

process of co-creation, led to re-connect with their passion in a meaningful manner, and sharing their (passion for the brand HMT); and their love of the watches - with others. And through this shared experience, they were able to form personal, lasting friendships and build a sense of belonging that extended far beyond their collective love of HMT watches.

As I delved deeper into the research on co-design and co-creation, I began to see how this approach can be used to revitalize struggling brands like HMT. By tapping into the knowledge, creativity, and passion of online communities and focus groups, companies can create products that are not only tailored to the specific needs and desires of their customers - but also are imbued with a sense of 'shared ownership and pride'. Such acts not only could bring a revitalization in their businesses, but also build a long-term loyalty to their user base – which increases over a period of time.

In this project, we shall explore the concept of co-design within online communities and focus/topical groups. The project shall examine the various factors that contribute to the success of co-design projects, including the role of social media groups, the importance of customer engagement and participation in the design process, and the benefits of mass customization through such groups. The research would also sum up, and highlight various aspects of participatory design or co-design, and how such an endeavour leads to empathetic and sustainable solutions. Through a combination of literature review and case study analysis, we shall highlight the importance of co-design, which not only creates value for the users but for brands as well.

What is Co-Design?

Co-design, also known as collaborative design, is a process where designers work together with end-users, stakeholders, and other experts to create innovative, yet sustainable solutions to everyday complex problems. It is an inclusive and participatory approach - that values the diversity of perspectives and experiences - that each participant brings to the collective table.

Co-design is important for several reasons. Firstly, it ensures that the end-users and stakeholders are actively involved in the design process, resulting in solutions that are more genuine, more relevant and more useful for their stakeholders. By co-designing solutions with those who will actually be using them - designers can gain deeper insights into the needs and desires of their target audience, and create products and services (solutions) that meet their needs, solutions that are sustainable.

Second, co-design promotes collaboration and teamwork among designers and other experts. By working together and sharing knowledge and expertise, social values in the form of empathy, loyalty, and trust, are created among their stakeholders.

Third, co-design encourages innovation and experimentation. By involving multiple perspectives and ideas, designers can explore new and unconventional solutions that may not have been possible within the traditional design paradigm. Co-design also allows for rapid prototyping and testing, which enables designers to quickly iterate and improve their solutions based on feedback from end users.

Co-design promotes equity and inclusivity in design. By involving diverse groups of people, co-design ensures that the needs and desires of all stakeholders are taken into account, including those

who may have been traditionally marginalized or excluded from the design process. This can lead to more socially responsible and sustainable outcomes.

Overall, co-design is a powerful approach to designing solutions that are relevant, effective, and equitable. It allows designers to work collaboratively with end-users and stakeholders, promote innovation and experimentation, and ensure that the needs and desires of all groups are taken into account.

Difference between Co-Design and Participatory Design

Participatory design focuses on involving end-users and other stakeholders in the design process from the beginning. It is a bottom-up approach that values the knowledge and expertise of the people who shall use the solutions that are being designed. Participatory design aims to empower end-users and other stakeholders by giving them a voice in the design process and creating solutions that are tailored to their specific needs.

Co-design, on the other hand, is a broader term that encompasses participatory design as well as other collaborative design methods. Co-design involves designers working together with end-users, stakeholders, and other experts to create innovative solutions.

While there is some overlap between participatory design and co-design, participatory design is more focused on empowering end-users and other stakeholders, while co-design is more focused on collaboration and innovation. Both approaches are valuable and can lead to successful outcomes, depending on the specific needs of the project and the goals of the designers. The key is to choose the approach that best suits the needs of the project and the

people involved, and to ensure that all participants are involved and empowered throughout the design process.

HMT Watches: The Rise and Fall of Timekeepers of India

In the year 1961, a historic partnership between HMT (Hindustan Machine Tools) and the Citizen Watch Company of Japan, led to the birth of India's very first wristwatch manufacturing unit in the bustling city of Bangalore. This city was the epicentre of manufacturing and research, and now – it is considered as "India's Silicon Valley".

HMT was a government-owned unit and manufactured heavy machinery for the (then) upcoming industries. Under the leadership of Nehru, HMT got the mandate to design wristwatches for the common man, but they lacked the expertise required for watch manufacturing. The collaboration with Citizen thus was crucial for this new line of business.

Once initiated, watchmaking turned out to be so successful - that the company had to expand its production facilities, setting up new plants in other parts of the country - to meet the rising demand of the nation. It was also helped by the prevailing economic stance of India at that time, which favoured local production of goods and discouraged imports, almost closing off the country to foreign watch brands due to prohibitive import taxes.

The watches that HMT made were not just timepieces; they were symbols of India's potential and a testament to our ability to create world-class products. The hand-wound mechanical watches, automatic watches, and quartz watches that followed were all a reflection of the innovation and dedication that HMT embodied. The movements made in India under the Citizen

Group's license were almost indistinguishable from their Japanese counterparts.

Initial productions were limited to simple hand-wound mechanical watches, which was gradually followed by automatic and quartz watches. The movements were mostly made in India- under the license of the Citizen group, and were very similar to their Japanese equivalents.

The demand for HMT watches from the 1960s to the 1980s was huge - leading to long waiting lists. By 1991, HMT had produced almost seven million watches, more than all its domestic rivals combined. It was a moment of pride for every Indian who believed in our country's potential.

While it had the entire Indian market to itself, HMT eventually gained a rival when Indian business conglomerate Tata Group, established its own watch brand in 1984. Named Titan, the brand's focus was modern, fashionable quartz watches that were more in keeping with consumer tastes.

At the same time, the Indian economy slowly opened up to international brands as import restrictions moderated. And because of savvy marketing, Indian consumers desired newer watch brands.

Such brands offered timepieces at various price points, giving Indian consumers the choice they had been denied for so long. Suddenly HMT's timepieces were not desirable anymore. They looked outdated and old-fashioned compared to the competition. The sense of prestige and pride that went with wearing an HMT watch was sadly, lost.

Despite efforts by the government to rescue the company, HMT's market share plummeted to less than 5 percent by the early

2000s. Inefficiency, bureaucracy, and labor disputes coupled with resistance to change and reluctance to adopt new technology, all contributed to the company's downfall. The once-proud HMT was bleeding money and was on the brink of collapse.

The government of India finally shut down HMT's watch business in May 2016, the company had been enduring almost continual annual losses since the early 2000s, amounting to around US$1.9 million in 2004 and rising to around US$3.6 million in 2013.

The news of the shutdown of HMT's watch business had been circulating in the media months before the final closure by writing 'The end of an era', 'the loss of a cherished brand', and the demise of 'a part of India's heritage'. Hope of a revival faded when the last of its employees were laid off in May 2016. The closure of HMT's watch business was a tragic end to a glorious journey. The factories that were once bustling with the production of watches was repurposed for other more essential or profitable products.

Summary of literature studied

Design is no longer confined to the traditional roles of the designer, executing a project for the stakeholders. The 'top-down' approach of design has been replaced by user-design. While reading the papers, it was observed that participatory design seems like an evolutionary way forward in the design paradigm. So, design has become a collaborative process that involves a diverse group of stakeholders (involving both the designers and their users.

While exploring the concept of co-creation in design, we see that co-creation involves a shift from designing for users - to designing with users. It is suggested that by involving a diverse group of

stakeholders, co-creation can lead to more innovative, sustainable, and meaningful solutions (for the users).

The concept of Co-creation is an extension of empathic design. It is observed, that in the current design process, empathy has become a superficial and trivialized quality, and it should go beyond understanding the user's emotions. A more holistic approach is proposed to empathic design that -involves understanding the user's context, environment, and social interactions. During participatory design exercise, designers get to have an intimate experience with their users – which lead to solutions that are more meaningful to their users.

Participation, should not just be about involving users in the design process; but it should be a more democratic and collaborative approach to design. Designers should understand the complex relationships and power dynamics involved - in involving stakeholders, who although are 'outsiders' (when seen in terms of a design process). A framework for configuring participation is proposed, which involves understanding the goals, context, and characteristics of the design project, as well as the capabilities and expectations of the participants.

By involving users in the design process, and by giving them a chance for equal participation (in the design process), it is observed that this act empowers marginalized communities – and gives them authority in the decisions that affect their (users) lives.

It is also important, to see and explores the role of mental models in design collaborations. It is argued that mental models, or the shared understanding of the design problem amongst stakeholders, can influence the effectiveness of the design collaboration. By understanding and managing mental models,

designers can improve collaboration and create a better value, defined not only as an 'economic value', but could also address social issues for all stakeholders.

The role of online communities in the design process is also looked at. Online communities are valuable tools for designers to engage with users, gather feedback, and co-create solutions, which are more acceptable to such users (in this case, online group members). It is argued that customer co-design, within online communities, can overcome the challenges of mass customization, such as high cost, long lead times, and high complexity. A focused group has like-minded individuals, and their desires, and thus mental models are the same. A co-creation, done in this manner, increases the chances of such solutions to be more acceptable, to those members –since they had a say in the design process. In such a way, it builds a positive loop - and creates more loyalty toward the brand (by group members).

To understand some of the broader aspects of customer involvement in the design process, research is explored towards, the trend of customer co-design in the fashion industry. The paper contains case studies in which the authors argue, that customer co-design can provide a competitive advantage for fashion companies - by allowing them to create personalized products that meet the specific needs and preferences of customers.

Overall, these papers highlight the importance of co-creation, online communities, customer co-design, empathic design, and value co-creation in the design process. The focus on collaboration, participation, and understanding the needs of users and stakeholders is critical for creating effective and socially responsible designs. Online communities can be a valuable tool for designers to engage with users and co-create solutions. Customer

co-design can overcome the challenges of mass customization and provide a competitive advantage for companies. Designers need to adopt new tactics for design participation that involve engaging with users in a more democratic and collaborative way. The frameworks and case studies provided in these papers can be a useful guide for designers looking to incorporate online communities and customer co-design into their design process.

Development of a Wrist Watch by Online Fan Groups: A Participatory and Co-Design Approach

Within the HMT enthusiasts groups, it was observed that the members didn't view their watches as 'products', but rather as 'artefacts' – that were essentially an establishment of their own personalities. They bonded with the products on a deeper level, and are passionate about various micro-details about their watches. One member reported that they have a collection of around 100 watches, which is focusing on one model – HMT Janata. During one of the interactions, they gave a detailed presentation of various iterations of Janata, talking about the changes or evolution of the typeface, written elements that were added or removed, the dial finish, colon, and changes in the – to also which models were made in which factory, in which batch and so on. It was observed that many members had such a plethora of information that each member would know about specific details, all according to their liking.

The members belong to diverse demography and backgrounds. From old watch repairmen to High court Judges, from IT professionals to architects, business owners, doctors etc. On a first glance analysis, one would finds that most of the members are men, and are restricted to the geography of India. However, because of the advent of social media – there includes some

members, who are of non-Indian lineage. They are interested in the brand HMT because the watches were not only affordable, (in a world of luxury watches, HMT mechanicals are still under 100$), but also like time capsules, retaining the retro designs of the 60s and 70s. One can also see, a growing no. of women members as well, mainly because a typical example of an HMT case falls within 33- 36mm (from both sides of the bezel), and thus an HMT men's watch can also be worn by women.

Each member, on average, has more than five watches in their collection, and in some cases - the range can get to a couple of hundred. The collection, when seen as a whole – can be seen as an educative tool to learn the evolution of product design in HMT. Some members have collected certain pieces that are not in production since the 80s. Some, through their favourable and personal connections had an access to HMT, where they were able to collect a few experimental and trial dials. There are several marketplaces within these groups, where members, apart from sharing information, and photographs, also buy, sell or trade their time-pieces.

Through such watch groups, which exist on various social media platforms – there is an existing ecosystem, where HMT exist as a 'cultural phenomenon'.

Since the closure of HMT Watch division, these members have actively tried to increase the brand base, through their respective groups. Most of them are part of two or more groups, and have cross-platform profiles. Through these cross-interactions, a newer audience is found and consolidated in the groups – increasing the number of members, increasing their curiosities and eventually – converting them as consumers of HMT watches.

Projects like White pilot or Airavata, were amongst the first of their kind, where the stakeholders i.e., the group members from the WUS HMT forum, had a direct say in the design and development of a watch concept. The group members constituted a large number of professionals, from diverse backgrounds, spread all over India. But because of their collective knowledge, they were able to design and develop watches that were meant only for them, but also for HMT.

HMT was struggling to sell over their inventory – to large masses. Due to its depleting profits, HMT was not able to innovate its product range. Prior to the age of social media, or WUS platforms – HMT had no direct connection with their consumers. The designs were created in isolation. Also, because of its unique character (incepted when the company was formed), HMT was not investing enough in research and development –thus sticking to the design language of the 60s.

Here, for the first time – an opportunity was given to outsiders, who were not able to create a product –which looked on par with their design, it also added several numeral features that made these designs click even with newer masses. Because of the success of the LE White Pilot, HMT produced a regular edition of White Pilot which were immensely successful in the general market, amongst normal users as well (who were not part of any watch collections groups, or frequent buyers of watches). Even collectors began to advertise white pilot to their loved ones, and became advocate of it – because this was essentially, their collective intellectual property (IP), their own design.

Projects like Airavata set the stage for upcoming collaborations within HMT and watch groups. Apart from forums, various members (from the same WUS), spread out and began to form

new groups, on various social media platforms. Facebook became a popular option for these members because they could form exclusive, closed groups. They were able to share their photographs, and their content directly on these groups. Unlike WUS, Facebook groups were easily discoverable, they managed the content well, and the content was searchable. Therefore a large number of new members would often search about HMT and would connect with these groups, thus expanding the group – and in turn, increasing the base.

Post-2018 – Rise of new collaborations with Facebook groups.

After the closure of the watch division, a new division was created that absorbed all the remaining resources – which included machinery, commercial buildings and factory lands, and leftover stocks and spares. While everything was sold, to pay off the losses, under the request of these social media groups – HMT held over to their stocks and spares. The new division was known as HMT CSD (Common Service Division). CSD later reabsorbed other divisions (like tractors) and was rechristened as HMT ABD (Auxiliary Business Division). ABD started a website, dedicated to online retail of leftover stocks that were collected from all the factories that were spread nationwide. ABD also started a museum, in Bangalore – where it houses all the watches that they have produced till their closure, as well as their tractors, and various tools and machines.

As the stock hit the website, members from these groups would immediately buy out them – to either add them to their collection, or gift them to their friends and family, or trade them within their own group. Knowing the potential of these platforms, HMT kept a close relationship with their admins, often informing them about

the new release before stocking them on the website. The admins would inform their members about the release beforehand, making it easier for members to buy these watches before stock-out. This again created a loop of positive re-enforcement, as anyone who wanted to buy HMT watches would have to be a part of any HMT group – not only because the groups helped them to buy, but also to know more about the HMT watches, and their rich legacy towards the Indian manufacturing sector.

The admins of these groups also wanted to replicate 'Airavata' for their group members. So occasionally, the admins would ask their group members, for possible ideas for any project – which they could pitch across to HMT.

Projects of such kind started in 2017. Although these projects cannot be considered co-creations (as this project defines) they had elements, which were proposed by an outside stakeholder group, to the management of the HMT. Some examples of such projects were – HMT Janata HWC edition, where the dial had the group logo of a prominent Facebook group – HMT Watch Collectors, administered by late. Prashant Pandey. The watch also had lumed hands (a feature absent from typical Janata watches). Likewise, the same group commissioned group projects for their group members, where watches would be released to group members, before to general masses, on their retail website. Such releases would also come with badging of their respective social media groups. The group logo was etched on the case back of these group watches, and thus – they held more value to their group members.

Such group projects also became an excellent ground for HMT – to test their new projects. Since the closure, HMT didn't have enough resources to manufacture the watch in-house. For new concepts,

HMT was dependent upon third-party manufacturers, who would create small batches of watches according to their (HMT's requirements). These small batches would then be released as limited edition watches, group projects, or small editions. Based on the performance and response of the designs – HMT would later release the design to open public, via their website.

From badged watches (putting the logo on dials or case backs), the members soon were developing concepts around existing IP within HMT's past catalog. For instance, a 2019 release of HMT Janata Gold, came into existence. What was interesting to see in this design was that the watch cases were gold-plated, with different indices and typography – similar to what was existing within the HMT design family. It was also observed that such designs held more popular support amongst not only their group members but also other groups within the ecosystem of Facebook. Similarly, a wide range of Kohinors was released by HMT – first in 2019-2020, and in 2022, and 2023 – where new colors were incorporated in the Kohinoor range.

What was interesting about this series, was that these colors had earlier been released by HMT, for Japanese markets in the early 2000s. So, by that definition – the concept was not novel for HMT, and they could not understand and make them again. Also, one could observe larger trends in the design of wristwatches, where a lot of brands, including Swiss luxury brands – have started to incorporate color in their popular model series. So, apart from White, Black, and Gold, consumers were also sporting colors like blue, maroon, green, and salmon shades.

The birth of New IPs

The next logical step, towards Co-Design – was the development of new design concepts that were not available within HMT's

previous catalogue. While several times, such requests were made to HMT, there were several limitations to the process. Firstly, due to extremely limited manufacturing capabilities, HMT did not have the capacity to create novel concepts. The Auxiliary Business Division's main responsibility was the sales of the left-over stocks, and maintaining the left-over businesses that HMT had closed down. So to create new concepts, HMT still had to use their existing stock in some capacity, in order to a.) Lower the overall manufacturing process, and avoid its related overhead, b.) Utilize spares, and left-over stocks, and c.) Create concepts that look within the existing HMT design ecosystem.

For admins, there were equal set of problems as well. Unlike previously, where through written texts, people were able to imagine the concepts, for creating newer concepts – they felt that some sources must be acquired, for creating clear renders of such concepts. The renders or sketches would communicate the design to both the members as well as HMT authority. Moreover, the design should be editable, so members can vote and change or remove details. And the same design, once finalized – should be transferable to HMT for production.

After knowing the limitations of both of these stakeholders, certain individuals (including the author), would create renders and sketches, which would translate the written details, and inspiration photographs, into a watch render that could be discussed, voted upon, and then sent over to the manufacturer for production.

These individuals were guided, by the collective knowledge the group possessed, as well as the limitations HMT had – in creating prototypes for new cases, or dials.

For example – HMT Gandabherunda, is the first IP made after the closure of HMT. Gandabherunda is a mythical bird, popular in Kannada traditions, and is the state's emblem. Since HMT was started in Bengaluru (in Karnataka), it was fitting that the watch gave tribute to its brand's cultural roots. The concept was easier to execute, as it involved a new dial design. This iteration was essentially an HMT Janata, with a topical dial – conceived by an outsider. At this stage, for the design process, one saw a division of the platforms. While social media groups were still used to get an opinion on the new design, to vote for some of the features, and to announce or bring the required MOQ to their design concepts. For rationalizing and rapid prototyping, certain individuals were collected by the admins and were connected within a messaging group (like WhatsApp). These individuals were included, based on their personal relationships with the admin, how similar their mind sets are, how much they are open to critique, and what assets they can bring to the project. In an unofficial capacity, these individuals would act as project managers, content creators, and designers. People who had some skills in rendering, design thinking, and prototyping – were also involved – to create suitable renders for their group projects. In some manner, HMT outsourced research and development of newer ideas, and newer concepts to stakeholders, who had a deep and keen interest in developing products, and owning them.

Since Gandabherunda, several concepts have been proposed to HMT, and based on their current manufacturing skills, as well as that they are bringing a minimum quorum – these projects are under-development. HMT is also trying to position itself back into the watch manufacturing business and is currently investing in building its business set-up, and manufacturing abilities. The new projects range from the assembly of old parts to creating a

concept that has been out of production for decades, to new dials, and new colors of their famous product line. HMT has now started to accept some proposals, which include changes in their case, hands, or utilizing movements that are not in their current catalog. Such product lines, if produced – would be amongst the first projects which would be introducing radical design language in the HMT Catalogue, but at the same time – respecting the roots and heritage of the brand.

For the current research, three projects have been selected – which are under the process of manufacturing and release. These projects include – HMT Kohinoor Quartz (a re-assembly of old components to create a new product), HMT Jagannath (a new dial design concept to create a devotional watch), and HMT Commando (A new, bigger pie-pan case similar to Airavata, at 39/40 mm).

Primary Study

The research was conducted using a qualitative case study approach, with data collected through online surveys, and written interviews. For the interview, the projects were selected whose proposals were conceptualized within the first quarter of 2023, during the duration of the study. The participating members were selected based on their interest in HMT wristwatches, their contribution to designing the co-design proposals, and their willingness to participate in the process. For manufacturing and design guidelines, a reputed third part was consulted, which also manufactures watches under its micro-brand.

The data was collected in the following phases:

Phase 1: Survey - A survey was conducted to understand the participants' awareness and knowledge of co-design, their

interest in HMT wristwatches, and their willingness to participate in the research.

Phase 2: Concept Selection and Proposal - The participants were asked to propose their design concepts for the wristwatch, based on their preferences, needs, and expectations. During the research, the participants had to share their views on the concept, how they felt while designing the proposals, how much value they were assigned to the task, and in what terms they were defining the 'value'. The participants also shared their conversations – documented on the group chats. The purpose of such an exercise was how the members were interacting with each other, how much they were able to critique the ideas or acknowledge the inputs of other members, and such qualitative aspects. The group was encouraged to discuss and debate their proposals before submitting them to the manufacturer.

Phase 3: Evaluation - The concept created by this focus group was evaluated by the wider audience, present on the social media platforms. The evaluation was done on the basis of whether the concept would find enough backing, a finer critique or approval of the design and its elements, and other aspects. In essence, the wristwatch concept was evaluated by the online fan group, to assess its aesthetic appeal, functionality, and marketability.

The evaluation also considered the value created – for both the members of the online group and the manufacturer through the participatory and co-design approaches

Once the proposal was finalized, they were sent to the manufacturer (HMT), for final approval and development of the wrist watch, incorporating to develop the design of the wristwatch, incorporating their chosen traits and features. The

manufacturer will provide technical guidance and expertise throughout the design process.

Let's discuss some finer aspects of the project, in terms of the principles and Ideas of Co-Design, which were applied in the above-stated process.

Based on the literature review, the following methodology was utilized for the

Concept Selection and Proposal:

- *The members, within the WhatsApp group design, were asked to create concepts. Here there was no limit to the topic or the central idea for the concepts.*

- *After collection, the concepts were shortlisted, considering the relevance and promise of those projects, and their alignment to manufacturing constraints.*

- *The concepts were showcased to a larger social media group to gather their feedback and opinions. Also to get members to overall – approve the project's theme.*

- *After the first showcase, the broad opinions of the group member were looked at. The author encouraged discussions and debates among the members to refine and improve the shortlisted concepts. Based on broader feedback, the concepts were streamlined. One clear iteration came into being after being favoured by most of the members.*

- *Based on the feedback, the finalized concept was showcased to the group for approval. Here the names of the members were also recorded, to get the final numbers. The author committed to the design of the dials and various aspects, to be sent for final approval from the manufacturer.*

- *Participants worked together, to create a detailed proposal for the selected concept, including sketches, specifications, and rationale. The same was sent to the manufacturer, for final production.*

To ensure that the principles of participatory design and co-design were followed, the following steps were taken, during interaction

- *Open and transparent communication among the members was encouraged, and it was ensured that everyone's input was valued and considered. A collaborative environment was fostered, where besides wristwatches, members would also discuss their other hobbies or passion, or their day-to-day life experiences.*

- *The author continuously sought feedback and suggestions from the members to improve the renders and it was ensured that the renders met participants' needs and expectations.*

- *Each contribution was acknowledged and recognized throughout the co-design process.*

- *While developing the concept, the manufacturer was given a fair idea of the design, so that accordingly – they can clarify certain technical details and the feasibility of the project.*

Overall, this methodology facilitated (or aimed to facilitate) a collaborative and participatory design process that involved participants in every step of the wristwatch co-design project, from concept development to the final proposal. By following the principles of co-design and participatory design, it was anticipated that the entire process would build – a valuable and meaningful experience - for both the members and the manufacturer, resulting in a successful design concept.

For brainstorming, a strategy was followed, to come up with themes and concepts for design. The author helped in the process, by designing and developing concept sketches.

- ***Brainstorming (Figure 1):*** *The first step involved participants generating ideas for themes for the wristwatches. This was done through detailed discussion, where each member would discuss their ideas, and how they are relevant in the present context. The concepts were usually re-introductions of old, out-of-production, rare models - with certain customizations. Or they were certain features in the related watch market, and how those features and design trends can be brought into their new, developing concept.*

- ***Categorization:*** *Once a sufficient number of ideas have been generated, they could be categorized into different themes, such as military, space exploration, divinity, cultural and regional motifs, etc.*

- ***Prioritization:*** *After categorizing the ideas, the members were asked to prioritize the themes based on their preferences.*

- ***Design Researcher Intervention:*** *At this stage, the author extended their help by suggesting prevalent design trends and providing design inputs that would complement the members' ideas.*

- ***Sketching:*** *Based on the prioritized themes, members asked the author to sketch designs of the watch face. The sketches would be uploaded to the WhatsApp group for feedback and improvement.*

- ***Finalization:** After several rounds of feedback and improvement, the final design could be selected and submitted to the manufacturer.*

Overall, the author played a role in guiding the participants in the design process, providing design inputs, and assisting with the technical aspects of dial renderings. By working collaboratively, the group created wristwatch concepts that are unique, functional, and aesthetically compatible to HMT's design DNA.
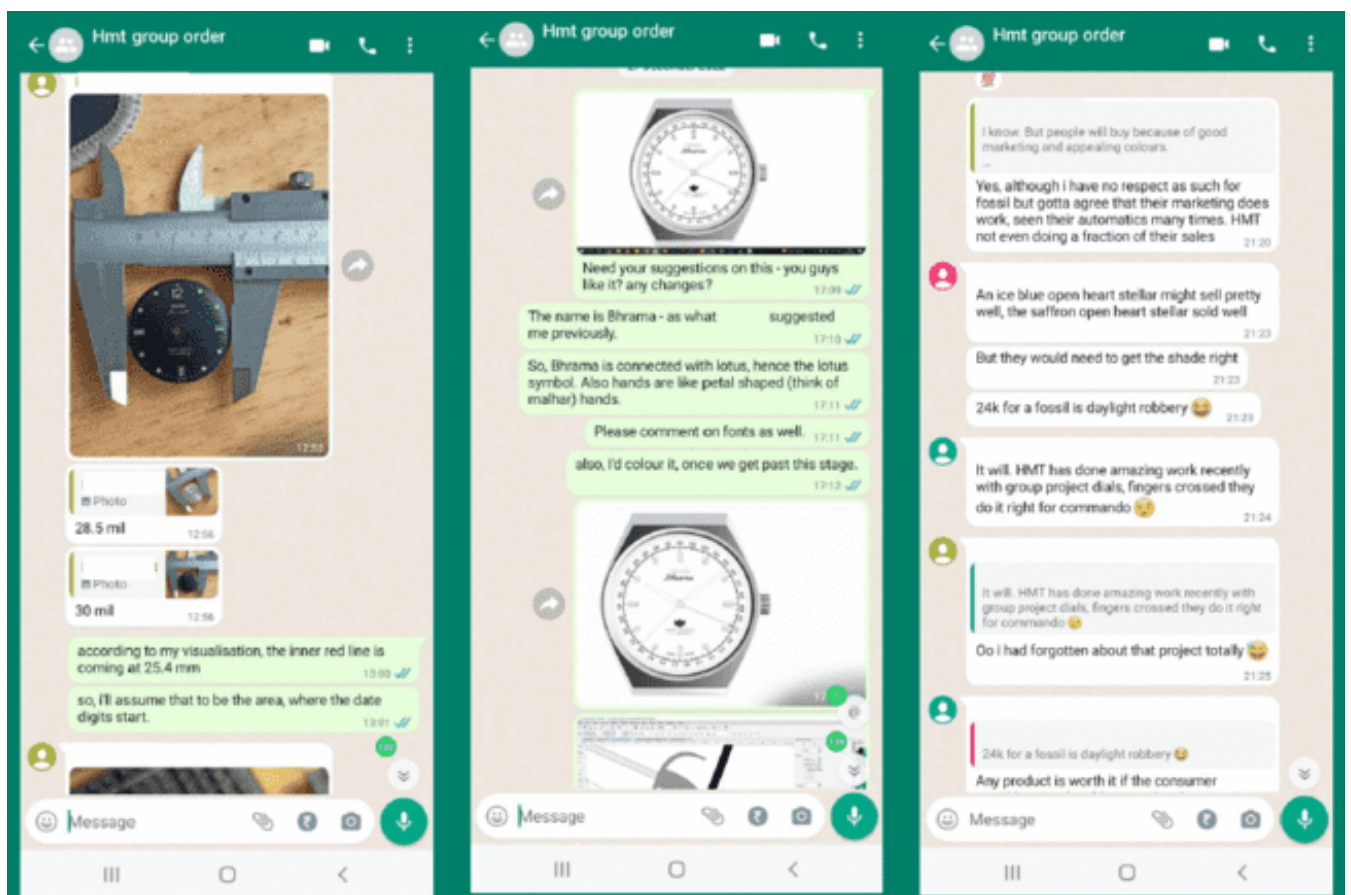

Figure 1: Screenshots of a Whatsapp group detailing how participants interact with each other, and how they contribute in the construction of a design proposal.

Figure 2: Concepts under production, created using co-design approach

Analysis

During the period of research, a total number of five projects were directly overseen by the researcher. In terms of design intervention, the project included from re-assembly of old components, to creating new cases and dials – so the interventions were according to the requirement of the projects. Out of five, two projects were halted and eventually turned down by the HMT management – due to technical – internal issues.

During the project, the researcher joined these groups to help and oversee the process. In situations, where tools were required to visualize the ideas, the researcher helped the participants with creating sketches, where not only the concepts were clearly seen by the participants, but details were also established – e.g. the typography of the print, overall size, and ratio of each component, how certain components would look with different surface treatment, and such. The participants would mostly accept those details, the discussion would happen majorly on the broader aspects of design.

Many of the participants have been a part of earlier commissioned projects and therefore had extensive knowledge about guiding the conversations. Aspects like manufacturing feasibility, bringing the required MOQ, insider information on HMT management, and such details were shared by these members. Newer participants (who were joining these groups for the first time), would bring new market trends, features and design details, and new insights. Overall the discussion would be guided between these two points – uniqueness and feasibility, what elements HMT can commit, and what it may reject.

Despite a difference in experience levels, the communication between each participant was cordial and respectful to each other. Each relevant solution would be greeted with great enthusiasm, and the environment to brainstorm was good. On doing further analysis, it was found that participants have known each other, from them being members of the same social media group to some members running and managing these groups, to a few who had a relationship, outside social media. Because of their previous experience, the members would know everyone's capabilities, and how they can bring relevant contributions to the endeavor. In Mental models in design teams: a valid approach to performance in design collaboration?, the authors described that a team (participants in this case) should have a shared mental model, especially if team members have different ideas about the task at hand or if they come from diverse backgrounds. This contributes to better coordination and communication within the team, resulting in better team processes.

The process, during the design, can be understood by the concept of 'abduction'. An iterative process, one creates an object ("what") by utilizing a given desired outcome ("result") and a given working principle ("how"). Or, it can be seen as one commences with a desired outcome ("result") and develops both an object ("what") and a working principle ("how"). So, in some projects – it was decided unanimously what shall be the final product (e.g – a watch with four hands), versus a theme (military watch) and how it can be further shaped.

This method is associated, deeply with design thinking, and the concept of framing. Framing involves the iterative process of developing frames (combinations of a result and a working principle) and generating potential solutions, while creatively

transitioning between "result," "how," and "what" during the design process.

Here, the problems and possible solutions were explored, developed, and evaluated simultaneously in an iterative process.

From 'Co-Design as a Process of Joint Inquiry and Imagination', the author discussed John Dewey's views on the relationship between practices, experiences, and knowledge, and how these ideas are relevant to the field of co-design. The author then discusses Dewey's emphasis on communication, cooperation, and change, and the belief that - people can bring about positive change by working together. Dewey viewed knowledge as instrumental, concerned with exploring alternative futures, promoting communication and cooperation, and organizing positive change.

The open communication between participants, as observed in the research, provided an ideal platform, where knowledge transfer would freely happen. This was in a way, can be described as 'collective brainstorming', where members were jointly exploring, discussing, and defining a problem and collectively explored, developed, and evaluated possible solutions. The inquiry brought people further together so they can experiment and learn, and bring about solution that is mutually beneficial to all stakeholders –HMT included. Thus it can be argued that co-design has ethical qualities (based on Dewey's pragmatist philosophy.

For Dewey, moral experiences were his starting point, and the empowerment of people to cope with moral questions was his primary goal. Daily life, with both its minor issues and its major questions, is inherently ethical, and deliberation is a social process.

So people engage in a co-design process. They engage in ethics, and the ethics manifest when participants express and share their personal experiences, empathize with others, discuss current or problematic situations, envision possible or desirable situations, develop and evaluate possible solutions, and make decisions and bring about change. Co-design can be understood as an instance of moral inquiry, a reflective response to a problematic situation.

One possible benefit that comes from such a joint inquiry is that participants get associated with the brand HMT. They hold themselves in equal partnership with HMT, associating their vision with brand's longevity and legacy. Today, when large corporations spend large budgets on customer engagement and building brand association with their consumers - through the channels of advertising and public relations, here we see a unique approach, where experienced stakeholders, who have a prior connection with the brand, come together and through joint inquiry, envision a new future of the brands – one project (wrist watch) at a time. Psychological ownership, as explained in The two sides of empowering consumers to co-design innovations states that - how brands, particularly those who wishes to establish an engaged consumer base, prior to their launch can leverage co-design. It is argues that it is ultimately advantageous to the brand itself, as co-designing empowers consumers, and elicits a positive attitude towards the brand.

For someone in HMT's shoes, which is struggling to come back again in the market, these participants, (who earlier were active consumers), become passionate advocates and PR professionals (effective evangelizes) – without instituting any budget for such exercises. Not only they are more willing to advocate for the brand, but also they believe that it (HMT) is worth more than other offerings, from their competitors.

For instance, it was observed that –the inception of Kohinoor quartz brought a newfound interest and demand for retro quartz watches – something which was a dead stock for HMT since the 90s. Over a period of time, HMT also launched their Sangam series – which featured checked print and square case – a design trend popular in the 80s. These watches featured on popular content-sharing platforms, and thus got more responses, and possibly were bought.

Conclusion

The Mordor's Intelligence Report 2022, valued the global watch market at USD $ 92.7 billion, with a CAGR of 5.02% during 2022 and 2027. For the Indian market, a CAGR of 20.32% is forecasted for the same – within 2022-2027. The watches produced during the period would be mostly smart watches and luxury watches.

Amongst the many features of luxury, one prominent feature is the ability to customize certain features, in order to make them more personal. Luxury goods are co-related with self-esteem and image and are often seen as an extension of their user's personality.

In today's world, people have become more empowered. They want to have a say in the things they buy, use, and consume. This shift in consumer behavior can be given an effective space, through the concept of co-design - where companies collaborate with their customers to design products that are tailor-made to their preferences. This concept is not only limited to physical products but can also be applied to digital solutions and services.

Many product companies, especially accessory brands do tend to take such attributes of luxury brands within themselves. While doing the secondary study, it was observed that many premium

brands, do offer certain customization in their selected offerings, where customers can create some combinations (from the selected features), and utilize them to create a more personal product. The phenomenon has been captured under 'mass customization'.

The research in the context of designing group projects –co-design initiatives with mass customization essentially meaning the production of mass customized goods. It is powerful tools that can help businesses meet the unique needs and preferences of their customers. By leveraging such a tool – the participants designed watches that were tailored to the preferences of their respective group members, conceiving products that were truly unique and personal.

The feeling of 'personal connection' stems from the collective proprietorship of the product. Since the group members designed the concepts (within constraints), and these designs are recognized widely amongst different HMT groups – it brings psychological ownership to such participants, bonding them closely with the product, and with the brand.

HMT in the past, had co-created several co-design projects with their social media community, which brought them some success. The story of Airavat is one, where (during the process) it made people aware of its closing, and in response, the WUS members collected enough numbers – to voice that for HMT, there is some chance that it could survive as a niche brand. The community initiative didn't stop at group projects only. The members became passionate spokespersons of the brand, marketing it to everyone else. They (the fan groups) expanded the diminishing space of HMT, through their blogs, video content, and social media posts. They also enabled HMT to work with their remaining stocks, to

create an apparatus (in the form of a website), so that the brand could effectively sell online, and gave several new ideas, and customers – through such group projects. This success story is just one example of how co-design in online communities can lead to the creation of value.

One of the key factors that made the co-design efforts of these HMT enthusiasts successful was the use of online communities. These groups came together through social media platforms, creating a virtual space where they could collaborate and exchange ideas. Online communities, in this case - become a collaborative space for co-design - as they provided a platform for individuals to come together, regardless of geographic location or time zone, and work towards a common goal.

The research argues that in certain scenarios, customers can be involved in the design process, where companies could tap into the collective creativity and knowledge of the group members - resulting in the creation of solutions that are tailored to their preferences. This approach not only creates value for the customers but also helps companies create products and services that are in line with the changing needs of their customers.

Overall, the concept of co-design in online communities or focus groups, is a powerful tool that companies can access - to engage their customers in the design process. By creating a collaborative and empathetic environment, companies can create solutions that are not only beneficial for the brand but also for the customers. Through the research, it is observed that co-design can become a popular approach for companies looking to create value. With the right approach and mindset, companies can harness the power of co-design - to create successful products that meet the innermost, tacit needs of their customers.

As HMT moves forward in its journey to revive its brand, co-design will play a crucial role. By involving customers and communities in the design process, HMT created products that truly met the needs of its customers, and such initiatives would re-establish HMT as a respectable brand in the market. The power of co-design is evident in this case. With the help of its community, HMT has the potential to create a bright future for itself.

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