

Do Mechanical watches costs more than watches?

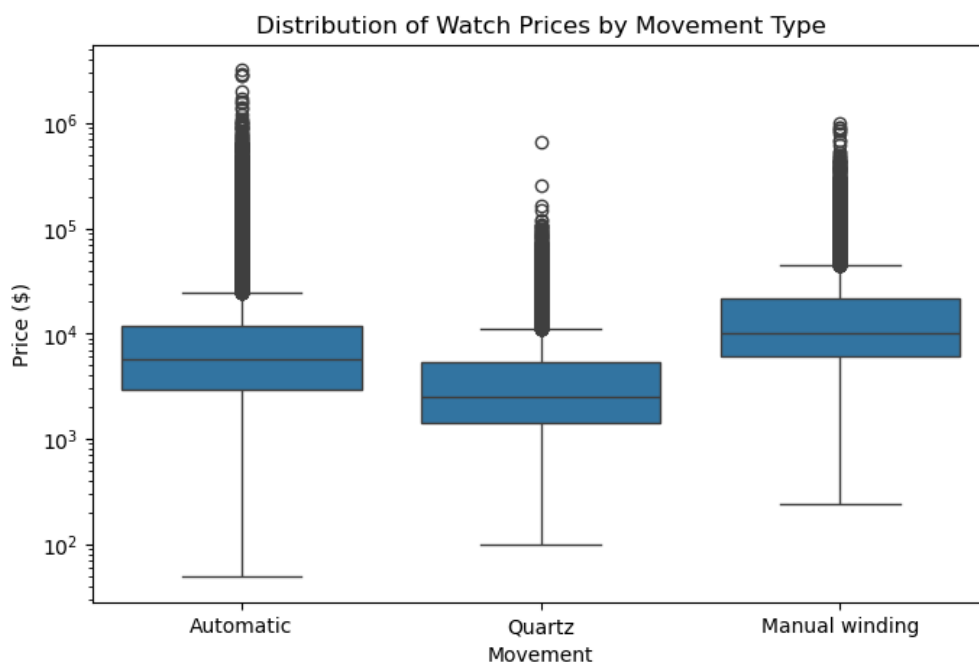
As we know that mechanical watches are favourite for the collectors, enthusiasts, and investors. With quartz technology rising, a new question has emerged: Do Mechanical watches costs more than Quartz and Automatic watches?

- Luxury watches generally categorised into main three categories:
- Manual Winding Watches: These are Traditional hand wound watches that require no battery.
- Automatic Watches: Self-winding mechanical watches that require no battery as well

Quartz Watches: Battery-Powered watches that requires no manual intervention.

Using Luxury watch data, I tried to compare the prices of watches based on their movement type. With this data driven approach I analysed price distribution, trends over time and brand wise comparison.

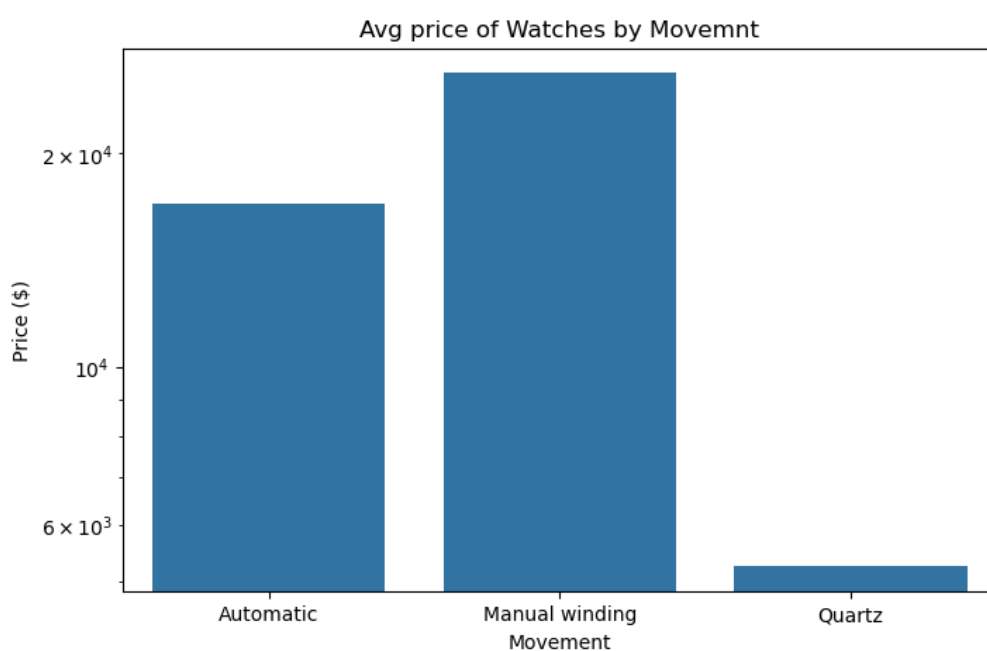
1) Price Distribution by Movement Type



The box plot gives the clear picture of how the prices vary among 3 categories. Mechanical watches (Automatic & Manual winding) have higher prices compared to quartz watches. Manual winding watches have highest median price which indicates their rarity followed by Automatic watches and Quartz watches have lower median price which shows their affordability.

This is due to reason such as Quartz watches are produced in large quantities where mechanical watches are rare and unique. Hence due to this rarity price increases in the mechanical watches. At the same time, we can see some outliers in quartz watches which shows, quartz watches also reach the premium price levels.

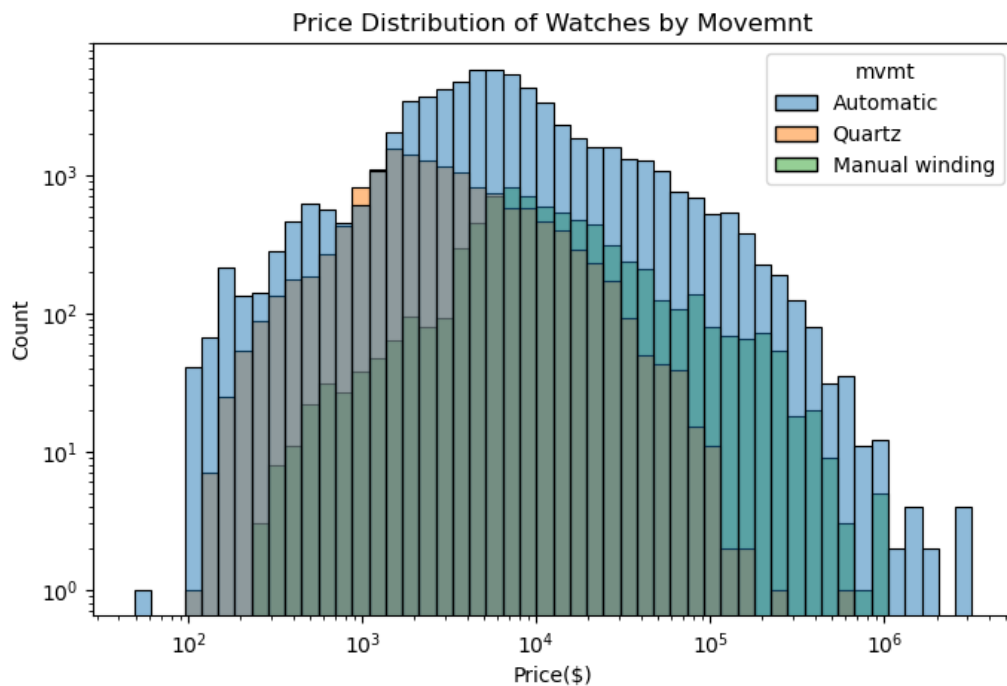
2) Average Price by Movement Type



This bar chart compares the average prices of different watch categories. Here we can see that the average prices of Automatic & Manual winding watches is way higher compared to the quartz watches. Manual winding watches are the most expensive. Quartz watches again shows affordability.

The reason behind this is Mechanical watches are built with a very complex mechanism and the craftsmanship that goes into those watches drives those watches to higher ends. As the complexity and craftsmanship increases, the price of the watches also increases. Also in quartz watches the price is dependent on factors like Chronograph features. So even some quartz watches with chronograph movement have higher prices.

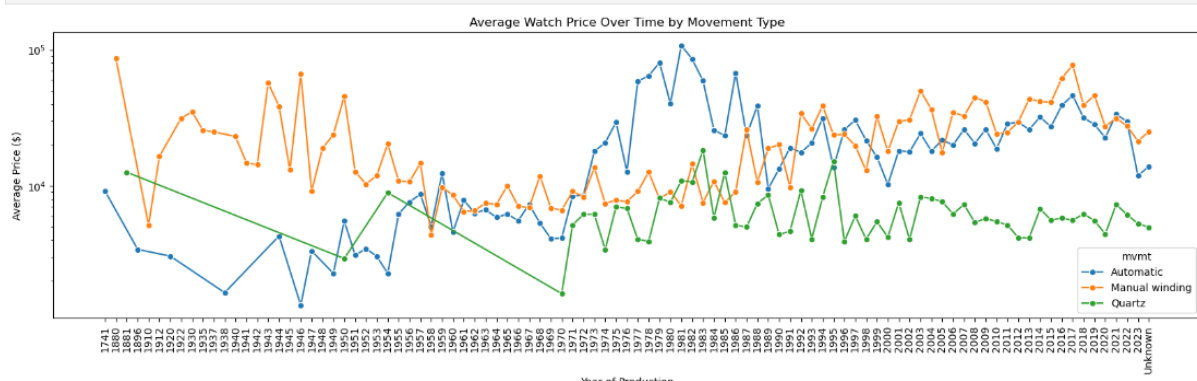
3) Price Distribution Across All Watches:



This histogram provides watch price distribution with further clarity. This histogram shows frequency of watches sold at different price point providing more detailed analysis. This is useful for showing skewness and clustering.

The quartz watches majorly falls into price bucket of (\$500 - \$5000). Automatic watches have a much wider distribution indicating watches from lower price range to higher price range. Manual watches appear mostly in higher price buckets.

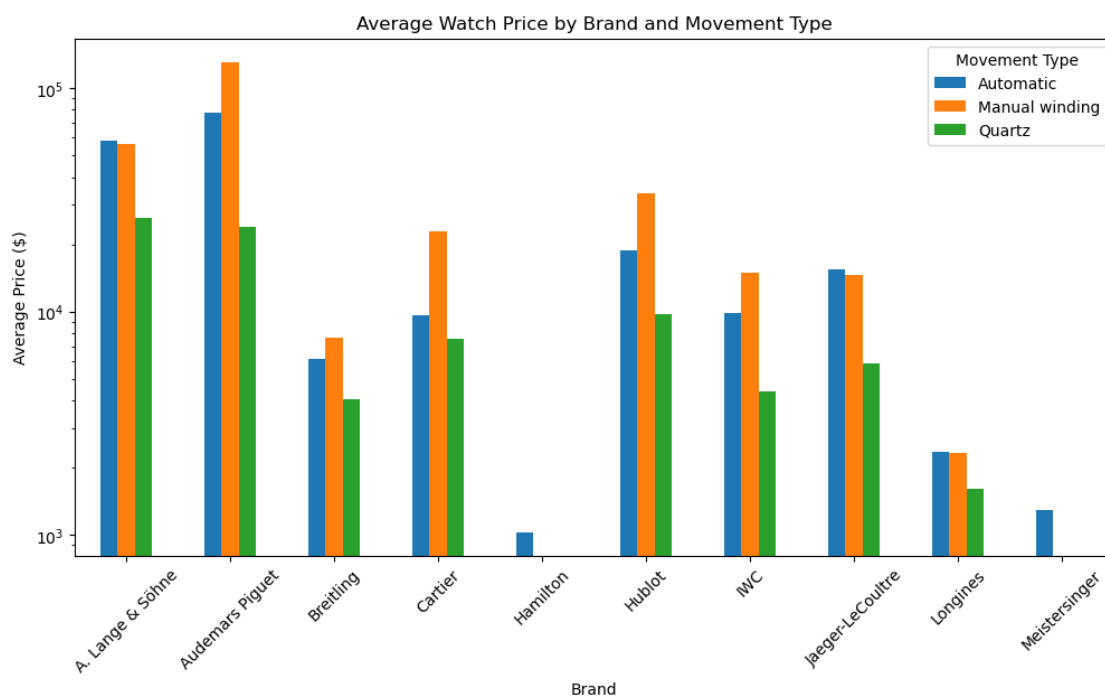
4) Historical Trends: How prices changed over time



By analysing this chart, we can see if the prices of watches in different category follows a similar trend or not or just in recent times the trend has been changed. Initially when quartz watches were new technology, they were higher in prices compared to automatic watches but after a period of time prices of quartz watches has gone down and for more than last 20 years, the trend is settled with mechanical watches have higher price range and quartz watches have lower price range.

Again, the reason behind this might be that, at the when quartz technology was new, the production of quartz watches was less and limited. Hence the higher prices for quartz watches. But as the technology became more familiar, more brand started making quartz watches and hence the drop in prizes of Quartz watches.

5) Luxury Brands and Price Variation



In this chart we want to see if the price variations in different watch category is different in luxurious brand. The result shows a consistent trend across all the brands where the automatic and manual winding watches have higher prices compared to quartz watches.

Prestigious brand like A.Lange & shone, Audemars Piguet which are considered as very prestigious brands have priced automatic & manual winding watches compared to their quartz watches. In all the brands the prices for quartz watches is at lower end compared to automatic and manual winding watches.

Conclusion

Watches are more than just a tool to tell time. They are considered as a daily essential accessory, symbol of personal style. In today's world with the smart phones and digital clocks one might question the need of wrist watch but watches offer more than just a convenience. Its not just about keeping track of time but it's about expressing one's identity.

Mechanical watches have been associated with luxury status which requires high craftsmanship and years of expertise to produce. Below are the some reasons why Mechanical watches are at higher price range:

- 1) High Craftmanship - Many luxury mechanical watches are handcrafted watches which requires expert precision level and months of labour to complete.
- 2) Exclusivity – Luxury watches are never produced in high quantities rather they are produced in limited edition making them rear and exclusive.
- 3) Historical Significance: Mechanical watches have been around for centuries and hold deep cultural and historical value.

So yes, Mechanical watches (Automatic & Manual Winding watches) costs more than Quartz watches.