

Overcoming Inertia to Stay Ahead – Innovation and Newton’s Laws of Motion



Sir Isaac Newton would have never imagined that the postulate of “inertia” used in the laws of motion would be a key reason for “lack of innovation” in several organizations today!

It has often been seen that successful companies hesitate to disturb the appcart and have low risk appetite. The problem becomes compounded if they are segment/market leaders and have moderate to little current and future (perceived) competitive threat. Very few have the courage to cannibalize successful products and disrupt themselves.

The key reason for this state of being or **“organizational inertia” is what I would like to call “Organizational Mass”**.

The organizational mass is not just the size in terms of revenue and number of people, it also includes their proven business models, years of successful operations, organizational structures, and leadership teams.



Newton's Laws of Motion:

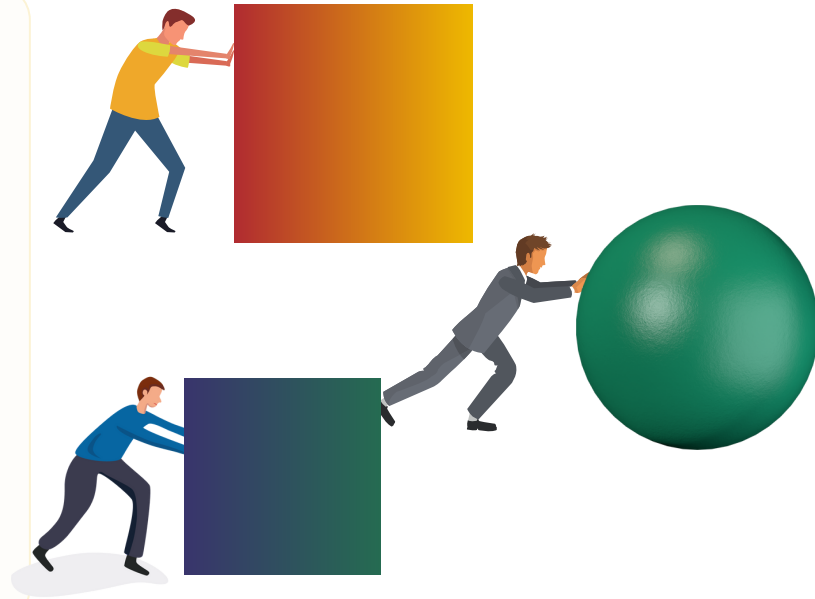
- **Newton’s first law (law of inertia)** states that if a body is at rest or moving at a constant speed in a straight line, it will remain at rest or keep moving in a straight line at constant speed unless it is acted upon by a force.
- **Newton’s second law** is a quantitative description of the changes that a force can produce on the motion of a body. It states that the time rate of change of the momentum of a body is equal in both magnitude and direction to the force imposed on it, **i.e., $F = ma$**

Organizational Mass = Proven Business Models, Organizational Structures & Leadership Teams, Number of People, Years of Success (Experience!).

Because of this “mass”, there is a certain momentum with which the organization is moving forward. If there are no forces to slow the organization down, everyone is happy to keep moving along at that pace (and be happy with a steady growth rate and incremental innovation) till external forces push them. This push could lead to doing things differently, launch of innovative new solutions or perhaps rethink of business models, in short lead to substantial/ breakthrough innovation!

Here is the point-

Larger the mass of the organization, larger the force required and for sustained periods of time to bring about a positive change in momentum of the organization. The other way to look at it would be to reduce the organizational mass which would be easier to drive for getting a sustained positive outcome.



Hence, the challenge is - How do Organizations create that force and/or manage the organizational mass to drive innovation which can lead to continued success? With ever shortening “S” curves, the need to innovate has never been so pronounced.

There are several organizations which have attempted to galvanize the force required to move their “large mass” i.e., innovate at an organization level and have failed to make any headway or failed to sustain the movement.

Organizations can consider the following to enable the right force pushing the right mass for sustained periods of time.

- “**Lo-mass**” empowered entities within the organization with the mandate to experiment.
- Empowered drivers of innovation, reporting to the Board of Directors.
- Teams that work on innovation projects to have no baggage of experience and “this is how our industry works”.
- Performance management system which enables innovation and experimentation.
- Likewise... there are several other levers that can be considered to achieve success.

In the Newtonian formulation, the common observation that bodies that are not pushed tend to come to rest is attributed to the fact that they have unbalanced forces acting on them, such as friction and air resistance.

I would like to leave you with the following thought - Organizations that continue to exist in their state of inertia will eventually fall out of the competitive landscape or meet the fate of the companies that lost out. One remembers with sadness how market leaders such as Kodak, Nokia, Blackberry faded into oblivion. The choice is yours!