Chapter 1

Innovation – **implementation** of a new or significantly improved product (goods or service), or process, new marketing method, or a new organisational method in business practises, workplace organisation or external relations.

- Invention – creative process involving creating something new
- Innovation – turning the idea into a viable product & getting it on the market so that consumers can acquire it.

Different forms of newness

- New producer
- New use
- New customers
- New technology
- Completely new product

The phases of innovation

1. **Exploration** – think outside the box , invent
   - Innovation begins here & most creative of all 3 phases
   - Originality, openness, vision, intuition & ability to improvise
   - Try out new or different technologies
   - Search for new ways of doing things
   - Finding new ways to meet customer needs
   - Associated with the research part of Research & Development

NB do not spend too much time & money in this phase as market changes e.g. Nedbank cash send was overtaken by ewallet yet it was their idea 1st.

2. **Exploitation**
   - Commercialisation of potential new products & services
   - Less creative compared to exploration but still NB
   - Aligns new products with requirements of the market & consumer
   - Makes the difficult decisions on how product/service has to be made & delivered to ensure profit as the end result

NB what might be obvious to inventors in exploration stage may not be favoured by potential consumers & users = loss i.e. ford kuga.

Other factors affecting incumbent firms

- **Traditions** – the way things being done for a long time becomes widely accepted such that change is difficult & traditions hard to break
- **Sunk costs**–prior investments where investment is technology specific
- Can't be transferred to new tech as its sunk in the old tech
- If firm invested heavily, expecting to spread cost over future output they make be reluctant to break from the old tech
- **Internal political constraints** – managers stuck up in old ways may see new tech as a threat, not innovate & stop others as well
- **Commitment to outmoded technology** –constrain innovation thus prolonging the period of equilibrium
- **PE** – helps explain existing firms reluctance to adopt new technology & why some innovators find it hard to interest existing firms with new ideas
- e.g. Dyson vacuum cleaner with dual cyclone tech that eliminated the need of a dust bag threatened their investment & manufacturing ideas
- it integrates the typology of innovation that distinguishes radical & incremental forms of innovation
- provides good fit with reality where technological discontinuities can be very disruptive

3. **Dominant Design** **draw diagram**
   - the one that competitors & innovators must adhere to if they hope to command a significant market following
   - constantly evolving, fluid, new designs & configurations being substituted for old ones
   - intense design competition & rivalry until one design stands out
   - breakthrough technology applied in different way to give a different product architecture
   - variation, selection, retention = single design that forms the accepted market standard (shake outs)
   - incremental innovations from branding/promotions
   - firms seek to lower unit costs through economies of scale & learning
   - highlights NB of user, who maybe more interested in usability instead of technical features
   - shows the NB of business strategy within an innovation (e.g.) Toshiba lost out to Sony because their business strategy was about being 1st rather than customer acceptance
4. **Absorptive capacity** **draw diagram**
   - Integrates both internal(knowledge , transfer, learning) & external (evolution of technology) dimensions of innovation
   - Ability of firm to recognise the value of new, external info, assimilate it & apply it to commercial ends
   - Emphasis is on learning thus differing from PE & Tech S-curve
   - Exposure to relevant knowledge via networks keeps organisation abreast of any developments in the field
   - Presence of prior knowledge plus diversity of experience = greater recognition of eternal ideas & stimuli

- search fee paid within a 12 month period o start the process

3. **Full "substantive" examination**
   - Final stage before granting of patent
   - Applicant pays further fee within 6 months of publication & detailed examination takes place to see if it meets relevant legal requirements of Patent Act 1997
   - Attention will be focused on whether documents reported at search stage & any others which have come to light since then indicate that invention is not in fact new or is obvious
   - Applicant gets report and make amendments at this stage
   - Upon satisfaction, examiner issues patent.

N.B. no worldwide patent each must be granted & enforced in each country.

Patent agent (NB) - lawyer specialising in Intellectual property law

- Combine a scientific, technical & legal background
- Provide advice on protection of IP for a fee but will also give guidance on whether the invention is patentable or not
- Draft patent applications for clients
- Area of expertise hence they can provide valuable info on what is involved in taking out a patent
- Conduct appropriate searches of patent records to ensure patent application is drafted sufficiently & specifically
- This provides inventor with genuine protection from infringement
- E.g. aerospace & pharmaceuticals employ full time **Patent Agents** to oversee their portfolio of intellectual property

Patent trolls (NB) – individuals (sometimes companies) that acquire patents often through bankruptcy.

- Do not utilize the patents to manufacture but they enforce them
- Challenge patents of existing products held by companies
- Anticipating **license fees, damages or out of court settlement**
- More of a problem in US than Europe

Legal remedies for infringement (theft/unlawful use)

- **Injunction –** restrains defendant from carrying out activities that infringe the patent/can issue restraining order to stop production asap
- **Damages-** compensate for loss/account of profit where instead of damages the award is based on profits made from infringement
  - also ask perpetrator to handover all counterfeit items in order to destroy them to avoid further infringement
  - some copies are so good that patent-holder decides to sell them

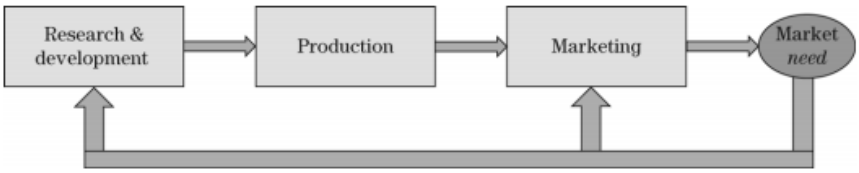
Ron Hickman's workmate portable bench licensed to Black & Decker was copied by Japanese Kinzo the counterfeits were so good that they demanded the counterfeit stock as part of their out of court settlement , relabelled and sold them.

NB legal costs can be more costly than the damage received (Hickman)

- **An order –** to destroy or handover infringing items to patent holder
- **A declaration-** that patent is valid & that indeed it has been infringed
- Accused tends to counter-petition stating invalidity of patent, should never have been granted and therefore be revoked.

Chapter 5 – The process of innovation

Demand pull – diagram and explain



Coupling - exam