

## The role of insurance features during health care product packages of the Corona pandemic

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### Summary:

The World is going through a period of natural and biological disasters, which require movement to face these pandemics. The emergence of the Corona virus at the beginning of 2020 AD has caused confusion in the world with the urgent needs of health care products for the current consumption imposed by the emergence of the virus. The urgent need and the increasing of products have been exploited by consumers, the role of security features of products to protect them from counterfeiting and to ensure consumer safety, features must be developed that consumer can identify if the product genuine or fake.

### Steps of the study:

#### Problem of the research:

The problem is related to the absence of the role of the package in securing the product or the presence of some health care products to counter the Corona epidemic that is not usable; they do not perform the purpose of protection from the virus.

#### Aim of the research:

The aim is to provide security solutions to package the health care products needed to counter the Corona virus.

#### Importance of the research:

The importance of this research comes through emphasizing the trust between the consumer and the product through a bilateral relationship that includes protecting the consumer from counterfeit health products.

#### Research Limits:

Spatial limits: market of products and companies specialized in packaging in the Egyptian market.

Time Limits: The period of the epidemic spread beginning in 2020, till now.

Thematic limits: production for packaging materials, and health-care products related to coronavirus.

**Key words:**

Corona Virus (covid -19) - security features for packages - health care products (medical masks - alcohol - disinfectants and hand cleaners) - public security features - hidden security features

**Introduction:**

As the Corona pandemic continues to spread, the demand for health care products increases around the world, which emphasizes the importance and role of packaging properly to the consumer's hand, as packaging is known as: Packaging makes products safe from damage during transportation and storage. It keeps the product safe and marketable and helps define, describe and promote the product.

"Packaging is the preparation of a product or commodity for appropriate storage and / or transportation. It may involve blocking, cementing, marking, binding, isolation from external factors, etc".

As all packages work to perform many functions, the most important of which is containment and protection, containment is the first role that must be played by any packaging, as containment means that the package contains the product and is free from exposure to the external environment. As for protection, it is the second aspect that is expected to be performed by any package, so protection is inside the package. Means that the product inside does not cause any physical damage due to exposure to light, heat, oxygen and water vapor.

The packaging is considered an economic means to provide protection, presentation, identification, information and comfort for the product from the moment of production until its use or management. Perhaps the most important function of packaging is to protect the product from physical damage and chemical deterioration from mechanical and climatic hazards in addition to the changes caused by microorganisms that must be prevented as it should. The product and packaging materials are compatible, in addition, modern packaging must be child-resistant and tampered, and health care products such as medications and food require greater care in reducing potential contamination and all of the above play a role in the packaging design process.

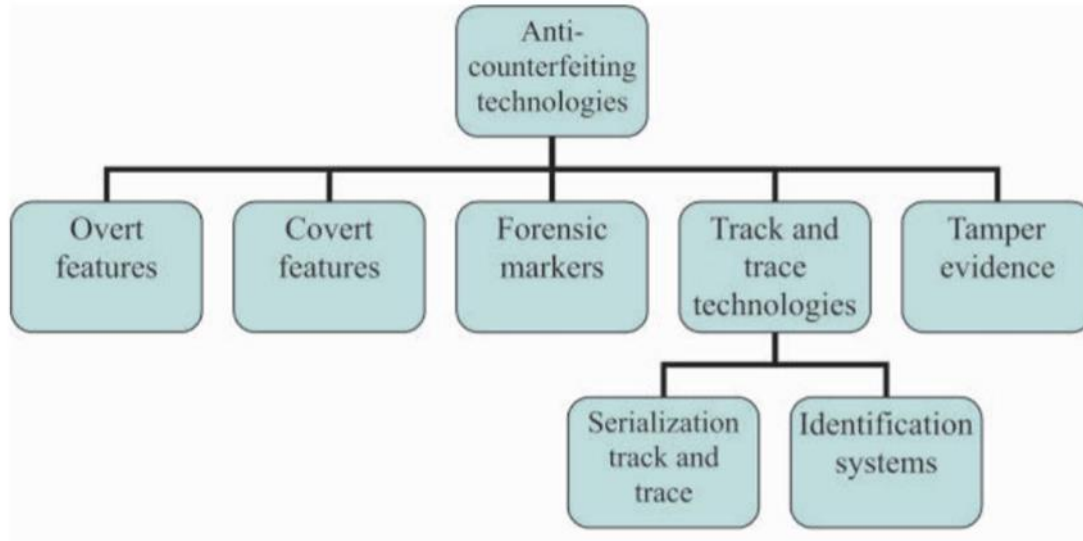
**Variables expected to occur in the packaging after the Corona pandemic:**

Going forward in time to visualize a scenario after the crisis of COVID-19 to determine the industry's expected impacts of various types of packaging is important and has included:

- Flexible packaging: Changes are expected in the flexible packaging sizes of light packages, as preferences change to multi-part formulas for economic reasons.
- plastics: The direction of hard plastics towards individual packaging, and thus towards reducing packaging size.
- Cardboard: The packages will be run through their storage capacity, and they will remain stable in packing health products like alcohol and detergent.
- Glass: According to analysis, glass will be the material most affected by the closure of businesses.
- Paper and cardboard: Finally, paper packaging, due to its economic value and compatibility with e-commerce, will be used widely during the time and after the introduction of social

spacing measures and also the most virulent materials on which the virus is based for a short period of 24 hours.

**Types of tamper-proof insurance technologies used in packaging:**



**users to verify the authenticity of a pack.**

Such features will normally be prominently visible, and difficult or expensive to reproduce. They also require utmost security in supply, handling and disposal procedures to avoid unauthorized diversion. They are designed to be applied in such a way that they cannot be reused or removed without being defaced or causing damage to the pack, for this reason an overt device might be incorporated within a Tamper Evident feature for added security.

Advantages	Disadvantages
User verifiable.	Require user education – not always widely understood.
Newer technologies are more secure.	May be easily mimicked.
Can add decorative appeal.	May add significant cost.
Can be a deterrent to counterfeiters.	May rely on covert features for authentication.
	May be re-used or refilled.
	May give false assurance.

**A.1 Tamper evident packaging systems.** Some packages are inherently tamper proof, like a tin can hermetically sealed, an aseptically packed multilayer carton or a vacuum or the retort pack. Other than the tamper evident system stated elsewhere, additional systems are:

a) **Film wrappers** A transparent film with a distinctive design is wrapped securely around a product or product container. The film must be cut or torn to open the container and remove the product. Substrates options include ultra destructible films, voidable films that provide image when removed. Solvent sensitive papers.

- b) **Shrink seals and bands**. Bands or wrappers with a distinctive design are shrunk by heat or drying to seal the cap and container union. The seal must be cut or torn to remove the product.
- c) **Breakable caps**. Such caps break when an attempt to open it is made. These caps provide external tamper evidence and can also be combined with the internal seals thereby providing double security.
- d) **Sealed tubes**. The mouth of the tube is sealed, and the seal must be punctured to obtain the product.

**B. Covert (Hidden) Features**. The purpose of a covert feature is to enable the brand owner to identify counterfeited product. The general public will not be aware of its presence nor have the means to verify it. A covert feature should not be easy to detect or copy without specialist knowledge, and their details must be controlled on a "need to know" basis. If compromised or publicized, most covert features will lose some if not all of their security value. For this reason, such techniques will not be disclosed in detail in this paper.

Advantages	Disadvantages
Can be simple and of low cost to implement.	Need strict secrecy – “need to know”
Needs no regulatory approval.	If widely known or used, may be easy to copy.
Can be easily added to or modified.	More secure options add supply complexity and cost.
Can be applied in-house or via component suppliers.	If applied at component suppliers, greater risk of compromise.

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