The Russian national branding of innovations in defense industry complex as the answer to global challenges of the present

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Abstract. In the article a comparative analysis of the international branding of armed forces is executed. The examples of effective national branding are given. Marketing technologies of defensive branch branding and formation of military culture are explored. Social media as a key instrument in the strategy of branding of defensive branch are considered. The Russian national branding of innovations in defense industry complex is analyzed. The successful Russian national brands in defense field are shown. The way of international collaboration strengthening in dual technologies in chemical and mechanical engineering, material science, nanotechnologies sphere is offered.

1 Introduction

In the modern global world the subject of national security, defense capability, military force and geopolitical influence is relevant for the majority of the countries [1]. The unstable international situation, the centers of the local military-political conflicts in the Middle East and the former Soviet Union, the competition for influence on their permission between the largest world powers indicates that circumstance that in the light of global challenges and threats branding of the country and branding of national security become closely connected [2]. Branding of arms, the military organizations and defensive branch in general exerts direct impact on perception of a national brand by internal and external target audiences and political positioning of the states on the international scene [3].

In many respects the strong brand of armed forces and defense industry complex is defined by the level of development and deployment of innovative technologies in branch. These innovative technologies are based on results of scientific and technical activity of the organizations working in a defense industry complex i.e. on the advanced scientific developments in materials science, nanotechnologies, chemical and mechanical engineering etc. The whole complex of scientific works is devoted to a research of these areas [4-11]. Attempt to present these results of scientific community, to find a possibility of their civil use for the purpose of the solution of essential social and economic tasks both the country, and the world and is the cycle of Workshops “High Energy and Special Materials: Demilitarization, Antiterrorism and Civil Application”.

2 Examples of national branding in the world

The comparative analysis of the international branding of defensive branch indicates relative fragmentariness of its reflection in foreign scientific literature. Generally focus of scientific attention of the western researchers of national branding is concentrated in areas of national culture, economy, trade, tourism, and gastronomy [12, 13]. The super-brand of the USA based on values of freedom, a campaign of rebranding of Germany ("Germany - the country of the ideas"), Switzerland (a concept of "Swissness"), Great Britain ("Cool Britannia"!), France ("New France - the country of innovations"), Sweden ("Progress and innovations in unity with the nature"), Austria ("Austria Brand"), Italy ("the Italian perfection today"), India ("Incredible India"), Brazil ("The world meets in Brazil. Come to celebrate life!") [14] show a key role of technologies of national branding in building of the steady characteristics giving political weight to the states as to global actors.

The strategy of creation of the international Scandinavian brand (not the sum of brands of the certain countries, but uniform interregional brand) strengthens brands of certain member countries (Denmark, Finland, Iceland, Norway and Sweden, along with the Faroe Islands, Greenland and the Aland Islands). The so-called “Scandinavian prospect” includes such values as openness and an opportunity to express opinion, belief each other and in leaders, tolerance and the equal rights, stable management and development of natural resources, the new ways of thinking which are focused on creativity and innovations [15]. Practice of national
branding of the small island state of Malta as successful purpose of public and cultural diplomacy is reached through policy, PR and culture, including participation in the EXPO in Milan in 2015, a meeting of heads of governments of the Commonwealth countries the same year, presidency at a meeting of the EU Council in 2017, a role of the capital of culture in Valletta in 2018 [16]. Examples of world branding indicate active search of unique characteristics of the countries predetermining their competitive advantage / appeal.

Experience of communication management of Germany demonstrates successful rebranding of the national image connected with a problem of reconstruction of extremely negative national image after World War II on the basis of distribution of values and prospects of the free and democratic state leaning on the power of the law and the symbolical slogan “Germany - the Country of the Ideas”. In the last fifteen years the kernel of her global perception was supported due to communication of a nodal concept Germany with a set of the dominating categories: commercial and economic, functional, standard and sociocultural. The commercial and economic aspect includes cult products, quality, prospects of employment and prosperity; the functional aspect means stability, competence, the organization and coordination; the standard aspect is associated with the constitutional state (Rechtstaat), trust, low corruption and position of “the good international citizen”, including granting foreign subsidies; the sociocultural aspect includes arts, intellectual heritage, festivals, the social world, a gastronomy and sport [17]. For comparison, Great Britain realized a successful campaign of "Abrupt Britain" at the Prime Minister T. Blair who advanced the United Kingdom as the fashionable center for branch, design and culture [18].

Concerning foreign policy image of Germany as military power, in research community there is no accurate consensus on the matter. On the one hand, within foreign policy strategy, according to H. Maul, image positioning is considerable more successfully, than in post-war Germany - thanks to the international conditions and other states, first of all the USA, but multilateralism and antipathy to military operations were decisive [19]. On the other hand, G. Hellmann claims that the internal image of Civilian Power is "myth" now, and the prestige and the status identifies as the defining factors in now "energetic" foreign policy [20]. Remaining "conciliatory", according to G. Feldman, the foreign policy of Germany faces calls from allies for increases in fighting [21] that causes discontent of the German electorate which sees advantages generally through trade and investments at evasion from physical risks (exceptions as Kosovo, incited a bigger contradiction). Merkel's Government gradually undertook more and more responsibility for defense and safety [22], many respect and support Germany just because of unwillingness of participation in military operations [23]. Thus, the leadership of Germany should balance between the "conciliatory" and expressed militaristic intensions.

3 Marketing technologies of branding of defensive branch and formation of military culture

Branding of military branch in separate researches is presented through social media and show business. At the same time, existence of attention to branding of arms, the military organizations and defensive branch generally indicates the need of mirror measures from Russia, with a support on own competences and national political and cultural experience. In general, a certain semantic contradiction in the international researches of branding of military branch is noted: need of branding of armed forces for improvement of image of the strong state and need of preservation of peacekeeping tendencies of intensions for structure of national image.

In general, it is a little scientific and practical works devoted to branding of defensive branch of foreign powers. Nevertheless, there are separate researches in which the problem of consecutive advance and improvement of image of strong NATO and a brand of safety of the EU is estimated as relevant [24], including for designing of perception by its population. The problem of NATO as brand is put in the plane of its internal support by means of use of skillful skills of management of image [25]. It is specified that NATO has a problem of public perception what protest actions against its actions testify to, in particular. The image of NATO needs improvement. In 2003 expressed NATO the intention to strengthen influence on the public and its perception of security policy of alliance. In 2004 the program of public diplomacy of NATO was updated, and more vigorous campaign of public relations is started. In 2008 the alliance resumed the efforts in the field of public diplomacy including aspiration to stronger web presence and creation of educational Internet videos about operations of NATO.

Strong public support strengthens the power of alliance and vice versa, failures in foreign policy can damage to selective prospects of politicians. In this regard NATO and its member states usually use a combination of the press centers, official speeches and public diplomacy for influence on public opinion. The press centers of alliance and representatives try to inform of the point of view of the organization of more general public through media, and they also seek to influence through media perception of events. Strategic communication is the tool connected with public diplomacy which target use is directed to behavior of other actors through formation of the positive relation of the public and providing a positive media covering [26]. Typical operations of strategic communications include press conferences, an interview and release of political communiques. Many highest officials regularly use Twitter and Facebook, publish video blogs in YouTube. In 2009 the alliance approved the strategy of public diplomacy which is openly recognizing that NATO has a problem of public relations, and offering the action plan for the best awareness of public information, especially among the young population about alliance.
Use of modern technologies in communications in the military environment for the benefit of national security can be considered the instrument of internal branding of defensive branch. A. Berg in the research describes the project in the Norwegian defensive branch of Sinett ("in common organized network") uniting a number of the connected tools known as Milab (military laboratory) with use of clever mobile devices which can support and automate process of creation and expansion of applications in the center of an internal ecosystem of the Norwegian defense) by analogy with the American military organizations which started the mil-App-Store application and the British armed forces using mobile devices in favor of the British protection and safety [27].

As the marker of military culture is described a phenomenon of "a digital routine", i.e. use of social networks by the American military personnel in everyday life [28]. Active personal use of electronic technologies by the American military personnel and veterans (computers, tablets, mobile phones) offers prospects for use of technologies of change of their behavior [29].

Formation of postmodern military culture is considered by foreign researchers in several aspects. As a way of use of "soft power" it is possible to consider the difficult cultural tool kit developed by modern military consultants of the USA successfully to construct the fruitful relations with foreign security forces [30].

Regarding formation of military culture of a postmodern (it is possible to regard as a component of branding of defensive branch though it is directly not specified it) it is possible to consider branding of armed forces of the USA by means of formation of a certain type of mass culture which result is a virtualization of war and formation of the noncritical identity of the citizen-soldier [31]. The place marketing, long-term dense cooperation with the film industry act as tools [32] (when actually the scenarios and symbols reflected in movies are made to order armed forces and in exchange for military technical assistance, the equipment and means for shootings: quality of examples is enough to provide movies "Green Berets" (1968), "The best shooter (1986), "The person from steel" (2013)), the branch of video games (I. Bogost defines them as a special type of advertising since the beginning of the 1970th) [33] offering the interactive and involving experience for potential beginners (for example, "The soldier of a full range" or "The American army series"), music video clips (Kid Rock's "Soldier" or "Citizen-soldier" of the 3 Doors Down group), sporting events (in particular, with association of races Nascar), thematic entertainment programs.

The virtual or "synthetic" worlds, such as "Second Life" (the game project of the three-dimensional virtual world developed with elements of social network), and online games, such as "World of Warcraft", are widely used now by corporations and armed forces as entertainments and as the educational environment to be engaged in business or to model war [33]. In turn, A. Rugg investigates technology of branding of armed forces of the USA by means of inclusion of military symbolic and an iconography in entertainments and sports events, for example, in games of National Football League. Militarization of branding of NFL expands military presence at sport and increases a role of armed forces in mass culture and everyday life of Americans [35].

The erased virtual identity of the citizen soldier and formation of the mechanism of virtualization of war is result of the long relations of armed forces with branches of media. N. Turse describes this cooperation as the "Complex" dissolved in pop culture, the civil "culture of the steepness" which is capable to create positive associations with armed forces, immerses youth in a charm, the militarized world of an entertainment, and do interaction with army the second nature of today's Americans [33]. Thus, interaction with armed forces is typical for most of Americans, at least at some level (owing to remoteness from direct military operations the lack of fear, and, on the contrary, the fun, a holiday installed by military force is noted). The film industry (in connection with the expressed impact of cinema on the American society [36]), the game industry, overall objectives of designing of virtual ideas of war and the identity of the citizen soldier have corporations and their brands and armed forces.

4 Social media in the strategy of branding of defensive branch

During an era of extensive development of new information technologies, including social media as instruments of public diplomacy, there is a problem of their adequate application within realization of branding of the strategic branches which traditionally have the closed character [37]. First of all, it concerns branding of armed forces. For armies information - the power capable to win wars, K. Gray and A. Gordo claim. Social networks change human perception of reality. Social networks Facebook, YouTube, Twitter and other platforms in a cyberspace use e-mails, blogs and web pages as ways of fast increase in a social possibility of connection. Unlike the military organizations, networks are decentralized and are not hierarchical. Two big American platforms of social networks Twitter and Instagram produce new generation of network public heroes, "idols of advance" which at the same time develop own brand and strengthen strategic stories of the government, for example, about progress of democracy [38]. In modern conditions social networks, nevertheless, become a part of military culture. A part of the organizations in military culture use social networks in addition to primary activity (for example, Al-Qaeda), in certain cases the movements exist only through social networks (for example, Anonymous, WikiLeaks) [39].

H. Pötzsch enters the concept iWar - the war based on Internet technologies which operate universal low network safety and can be used by any at connection to the Internet [40]. J. Der Derian gives an infoterror of Al-Qaeda after the attacks as an example on September 11 when psychological and political impact of attack was increased by force of visual images of death and the destruction extended and copied globally and at the
expense of it repeatedly increased excessively, having turned into virtual war [41]. A. Hoskins and B. O'Loughlin enter the term of the "diffusion war" connected with distribution and migration of information messages in the chaotic ways through difficult ecology of media which involve change of representations both uncontrollable political and social effects. "Diffusion war" is based on three connected driving forces: (1) a mediatization phase where perception and practice of war are significantly changed by Web 2.0 technologies; (2) result - unpredictability of flows of information and washing out of the cause and effect relations; and (3) increased uncertainty for the political persons making decisions [42].

War exists in parallel in real and virtual reality. So, for fight against ISIL it is possible to use social networks for prevention of recruitment of potential terrorists. The applied research of the mechanism of recruitment for the purpose of its suppression was conducted. At first 10 former extremists (five from far-right groups, five from jihadist groups) were employed to serve as "the entering parties". Then they used Facebook to find the people inclined to extremism (on the basis of such indicators as interests, the list of contacts, etc.). The entering parties sent the message to 160 people, having used the "payment for the message" function (a payment of $1 to send the message to the stranger). Preliminary results showed that most of recipients answered, having taken the decisive first step. About 60% entered "the long obligation". Thus, social media helped to conduct primary research of a way of recruitment of potential terrorists and to plan measures for the mirror answer in conditions when ISIL dominates in fight online [43].

The adoption of uniform approach to use of social media by armed forces is step on the way to formation of the all-European military culture as now EU countries have essential divergences in the field of defensive policy in general [44]. The unity of a view of armed forces of the EU of use of social media is essentially important for successful multinational military interventions as the lack of convergence among member countries will create problems for multinational cooperation and coordination [44]. Meanwhile, researchers it is contradictory estimate the level of unity in communication policy of armed forces of the EU: while G. Dimitriu states coordination of strategic communications, including social media, at the level of political and military authorities and recommends introduction of the consecutive story at the lowest communication levels [46], E. Olson, etc. consider that armed forces of the EU are not inclined to coordinate use of social media even top-level teams; use of social media as element of strategic communications for positioning of armed forces of the EU is contradictory is perceived by his members at the national and international levels [47].

At the national level social media are used, for example, as the tool for recruiting, providing the social obligation to service in armed forces [48], being the effective instrument of recruiting [49], and public acceptance of army and its tasks [50]. Difficulties of recruitment in armed forces of generation of millennials in the USA it can be solved by work on creation of a strong military brand in consciousness of Americans, including due to military advertising (by analogy with advertising of corporate brands), advances of image of armed forces by means of thematic video games, clothes in military spirit of the American military The all brand founded in 2008 (is on sale in Sears shops, licensed by U.S. Army) [51]. Marketing of armed forces in internal practice could include the "office messages", a story about army life told by soldiers [48]. Marketing at the international level is similarly important from a point of rehmen of support of the general strategic story as way to strengthen international mission.

In general, use of social media (first of all, Facebook, Twitter and YouTube; then Instagram, Google+, blogs) contains a congenital contradiction in positioning and marketing of armed forces. The army is perceived as the closed and reserved organization communicating in the formal way while social media in effect designate open, informal and emotional communication [52]. Supporters of use of social networks in military culture claim that information decentralization is capable to improve situational awareness, cooperation and moral spirit in the military organization and also to win hearts and minds of internal and external participants. Opponents of social networks lift a problem of cyber security, threat of confidentiality of information and see use of social networks by certain military professionals (in particular, military bloggers - "milbloggers") as a dangerous new vector for cyber attacks [53].

5 Russian national branding of defensive branch

At the real stage for Russia social media for branding of defensive branch are the new tool which is used by certain statesmen (comments of the Deputy Prime Minister of the Russian Federation D. Rogozin, the Russian Foreign Ministry spokesman M. Zakharova on Twitter). Meanwhile, the prospect of mass distribution of social media, especially at the lower communication levels, looks risky and doubtful. New information technologies need consecutive adaptation to national mentality and mass consciousness of the population. Attentive filtration of information occasions by means of military experts, and control is necessary from the state which acts as the main subject of national branding of the Russian Federation on the basis of representation of competences of defense industry complex.

If to carry out comparison of the western mass military culture with the Russian cultural tradition, then military patriotic education has a long historical retrospective due to development of the industry of military movies ("Officers", "Only Old Men Are Going to Battle", "In August of the 44th", "Fortress of War", etc.), songs ("Farewell of the Slav women", "The Sacred War", "Day of Victory", "Katyusha", etc.), the verses ("Wait For Me", "The Ballad About The Companion", etc.) popularizing and directed to positioning both roles of The Great Patriotic War in national history, and demonstration of the Russian national spirit of the
soldier, military power and defense capability of the country. Noticeable communication trend in this direction are numerous social and political talk shows with the emphasis on a military-political perspective and geopolitical opposition ("Time will show", etc.). Popular telecasts are directed to education of a debt of service to the Fatherland, strengthening of a martial spirit, a solution of the problem of recruiting on military service ("Proud To Serve My Country!", "Army Shop"). Effective communications in the field of branding of national defense and safety can be considered carrying out and broadcast of Victory Day parades, marches of "Immortal Regiment", the “MAKS” air show in Zhukovsky, international “OBORONEXPO” exhibition, etc.

Progress of national army in military battles, specific structure of the industry during the Soviet period with the emphasis on defense industry complex and, the main thing, stable scientific and technological achievements in this branch by right reserves the right to be the leading element of strategy of national branding for defensive branch [54].

For Russia system and consecutive realization of strategy of national branding with a support on competence of defense industry complex as one of the main strategic branches in the Russian industry is a political task number one for growth of geopolitical influence and patriotism of the population for consolidation of the nation in the face of global challenges [55].

6 Conclusion

Branding of armed forces may be a part of national branding for different countries. The defense industry and its innovative products represent priority competitive competences of the state [56]. The modern Russian domestic and foreign policy is in many respects actually aimed at branding of defensive branch [57].

Advance of innovative developments of defense industry, formation of brands of the Russian military aircraft (military planes of SU, MiG, helicopters Mi), overland arms (tanks "Vladimir (T-90)", "Armata"), the Russian systems of volley fire ("Tornado"), navy ("Peter the Great", "The Admiral Kuznetsov Of The Fleet Of The Soviet Union ", "Yury Dolgorukiy"), intercontinental ballistic missiles ("Satana", "Bulava", "Topol-M"), etc. is a basis for national branding of Russia and its positioning as the strong world power capable to exert political impact on formation of the international agenda and the solution of global questions.

Definition of the centers of concentration of innovative competences and key actors of defense industry complex, development of convincing national communication strategy of Russia will promote growth of the international authority and global prestige of the country. National branding of innovations of defense industry will provide to Russia solid reputation as the strong international player and strengthening of patriotism of the population of the country for consolidation of the nation in the face of global challenges and threats.

However, the world's arms race will hopefully end someday and high-energy materials will be efficiently used solely for civilian purposes. Their special properties, and unique features, results in the diversity of application of high-energy materials, and in a continuous discovery of new properties of high-energy materials which further the knowledge of the laws of the material world in natural sciences.

Applications of high-energy materials so far do not exhaust the possibilities of these kind of substances. Moreover, the creative efforts of chemists, physicists and other scientists continuously expand the range of energetic substances, so enriching humanity with new possibilities for the material world, and, consequently, a happy life [58].

Therefore, for mitigation of geopolitical tension there will be a development of international anti-terrorist cooperation, the international scientific and educational and production interaction in the field of civil application of defense industry, including chemical engineering, microtechnologies, nanotechnologies, holding the international thematic conferences and exhibitions, development of economic cooperation in civil sector.

This work was carried out with financial support from the Ministry of Education and Science of the Russian Federation (State assignment No. 11.10533.2018/11.12).

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