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SCHOOL UNIFORM COST REDUCTION STUDY: STANDARDIZATION, SIMPLIFICATION AND SUPPLY POLICY

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SUMMARY

Background

The primary goal of this Financial Crisis Response Project's component (thereafter "Project") was to gain insights into the school uniform related issues and inform the Ministry of Education, Culture and Science ("MECS") on the ways to lower the school uniform cost in the Mongolian market. This study drew on the data collected via 20 interviews and focus groups with students, teachers, parents, manufacturers, and educational officials, as well as data gathered by surveying 462 teachers, students, and parents in Ulanbaataar, Dornod, and Bayan Ulgh provinces.In addressing the main points of the Project's ToR –*b, c,* and *d* – the data analysis discussedkey descriptive statistics and cost simulation scenarios(24 Scenarios, each including 4 Sub–Scenarios). This Summary reviews the key findings and recommendations aimed at improving the school uniform quality, supply, and pricing.

Descriptive Analysis

At the present time, manufacturers in Mongolia compete based on product differentiation. Producers are focused on capturing the school uniform market by opting to differentiate themselves through detailed tailoring and complex designs. However, complex uniform designs, whose production often depends on outsourcing to China, are associated with excessive costs that are ultimately transferred to the end–consumers. The incentive behind differentiation is to gain exclusive relationship with each individual school and become the school's destination supplier. As a negative consequence of this process, poor students are often unable to afford the specific uniform selected by the school and its supplier and are, instead, left to search for cheaper alternatives.

For instance, 44.4% out of 462 surveyed parents, teachers, and students stated that students buy uniforms in the black market, indicating that the official suppliers – given the current pricing and quality issues – are unable to capture close to half of the market. In fact, some schools have already moved towardssimpler alternatives by askingtheir students to wear white shirts paired with pants or skirts.Suppliers' focus on investing in relationships with schools rather than improving the quality and price competitiveness for the end consumers. This approach – coupled with the outdated sizing standardsand poor design –is the key problem in the Mongolian school uniform market.

Solution: Standardization, Simplification and Supply Policy

Today, Mongolia's producers buy smaller quantities of the raw material due to highly differentiated products, which in turn leads to high raw material cost (i.e. 60% of Batzuu's and 50% of Ikhshaglaa's uniform price). If Mongolia moved towards the standardized uniforms that are functional and simpler in design, producers would benefit from negotiating the raw material purchases collectively. In the case of South

Africa, producers estimated that standardization alonecould result in the cost savings of up to 50% while raw material bulk purchases could yield savings of an additional 10%.[1]

Reinforcing the notion of the standardization, the survey–based data analysis confirmed that Mongolia's local stakeholders – parents, students, and teachers – wish for Mongolia to move towards the school uniform standardization policy at the national level. Of the total surveyed sample, 89.8% of women and 82.4% of men are in favor of standardizing school uniforms by level – one uniform design for primary schools, one for lower secondary schools, and one for upper secondary schools (Table1 below).

Table 1: Surveyed Sample: Standardization vs. Non–Standardization

	Female	Female %	Male	Male %	TOTAL
In Favor	289	89.8%	103	82.4%	392
Not in Favor	33	10.2%	22	17.6%	55
TOTAL	322	100.0%	125	100.0%	

In addition, the current sizing and design processes are inadequate for the Mongolian standard of living, climate, and changing body types. The 1996 sizing standards group children, ages 3 to 17, into 4 categories only. Today, suppliers often have to visit schools, measure individual children, and then manufacture based on their own individual measurements. Development of the sizing standards and their adoption nationally would simplify the production and supply processes whileeliminating recurring costs involved in measuring individual students.

Implementation Mechanisms: SSS Policy

Based on the research and analysis conducted during this Project, I recommend that the Clothing–Science and Design Department (CSD Deparment) work closely with the government and the manufacturers on a standard, affordable, climate–appropriate, and functional school uniform design for Mongolian students. Dr. M.Bayar is willing to cooperate with MECS on the issues of sizing and design of the school uniforms. In addition to developing the sizing standards, the Clothing–Science and Design Department, school uniform producers, and MECS should coordinate a design competition that would involve the top students and faculty from the CSD Department. This would be a cost–effective and collaborative approach to coming up with a standardized and modernized uniform design for school children in Mongolia.

Similarly, I recommend that the suppliers purchase raw material in bulk. The CSD Department, MECS, and suppliers should collaborate in selecting the material content that would be appropriate for the climate and maintenance limitations ofstudents in Mongolia. In particular, the SSS policy should be sensitive to the conditions of the poor

[1] PRNewswire (nd). Retailers unite in fight against high cost of school uniforms. Available online at: http://www2.prnewswire.co.uk/cgi/news/release?id=108366

students and those living in the rural areas where access to electricity and water may be limited. Thus, it is of importance that uniforms do not require ironing or dry cleaning. For instance, schools in the USA often use washable cotton–blend for khaki pants which, over the years, have become one of the key features of the school uniforms in the USA.

The design process should explore ways to improve uniforms' durability.For instance, pants could be reinforced in the knee areas, and waist bands for pants or skirts should be elastic and adjustable. Design differentiations should be minimal in order to keep the cost down. The color variations can be expensive, so the uniforms should either be the same color or have only one item that differs by school level. For instance, sweaters may differ in color depending on whether the child is in primary, secondary, or upper secondary school.

Other differentiations, if any, should remain limited to badges with the school names. Further, the school logo should be placed only on one item (i.e. sweater) to avoid high–cost associated with customization. If cheaper, the school badges could also be velcroed onto the sweaters to allow students to easily transfer from one school to another and still continue to use the same uniform. In addition, velcroing the badge would make it easier for parents to purchase or use second–hand uniforms from their friends and family whose children may be in attendance at different school. Lastly and given the high–cost associated with the production of blazers and other more complex uniform elements, I would recommend that such high–cost items be eliminated from the school uniform design, ending the need for outsourcing to China.

Incentive for the Suppliers

With the introduction of the school uniform standardization policy there would be an increased growth potential. For those suppliers that can successfully streamline their production process and compete with lower price and better quality, there would be an opportunity to increase the sales. Currently, 44.4% of the participants turn to the black market to purchase their uniforms rather than to the offical stores or the school suppliers. This is the market share that the Mongolian suppliers would have the potential of recapturing after a standardized, simplified, and affordable uniform is introduced in the Mongolian market.In addition, standardization and simplification would help manufacturers consider replacing outsourcing to China with localization of their production within aimags in order to reduce their distribution and marketing costs. In sum, there is a clear potential for suppliers to benefit from offering a competatively priced product that would gradually re–orient students towards locally manufactured products and away from cheap and low–quality alternatives presently sold in the black market.

INTRODUCTION

The primary goal of this Financial Crisis Response Project's component (thereafter "Project") was to gain insights into the school uniform related issues, including their affordability and availability in both urban and rural settings in Mongolia. The research conducted and knowledge gained during this Project was to inform the Ministry of Education, Culture and Science("MECS") on the ways to lower the school uniform cost in the Mongolian market. The preliminarydata was collected throughthe total of 20 focus groups and interviews with school/educational representatives,manufacturers, teachers, parents, and students. The initial data served as the basis for the survey design but also provided insights into the key issues involved in the school uniform provision in Mongolia.

In the next stage of the data collection, 462 parents, teachers, and students participated in the study. As was the case with the preliminary data, the surveys were administered to the relevant stakeholders in three key geographic areas:Ulaanbaatar, Dornod, and Bayan Ulgh Provinces. Reinforcing the preliminary findings, the survey–based data analysis confirmed thatMongolia's local stakeholders– parents, students, and teachers–wish for Mongolia to move towards the school uniform standardization policy at the national level. As thestudy argues throughout, this can be Mongolia's path toachieving its target of lowering the school uniform cost for its students andtheir families.Therefore, the study recommends that Mongolia moves towards the implementation ofthe SSS Policy: the policy stands for *Standardization*of the school uniforms nationally, *Simplification* of the school uniform design at all levels, and focus on the end–users'*Supply* and broader availability via competative markets rather than the current focus on fostering relationships with individual schools.

1. Data Collection: Sample Structure

Thestudy relied on the combined dataobtainedfrom the initial student–, parent–, and teacher–interviews/focus groups andthe surveys that followed (please see Appendices A–E). The localities chosen for the survey were not selected randomly due to a variety of the logistical limitations including the pre–selected areas of focus for the Financial Crisis Response Project, as well as the time frame allocated to this project component. The sample however was collected in schools throughout Ulaanbaatar, Dornod, and Bayan Ulgh Provinces.

The surveyed sample was structured so that it was representative of both rural and urban sub–populations. Of the total, 48.1% of the surveyed participants were from Ulanbaataar (please see Figure 1, p. 2). The surveyed sample is almost evenly split between the rural participants and those from the urban areas. Of the total, 47.6% or 220 of the surveyed participants classified their location as urban (please see Figure 2, p. 2).

Figure 1: Sample Composition by Locality

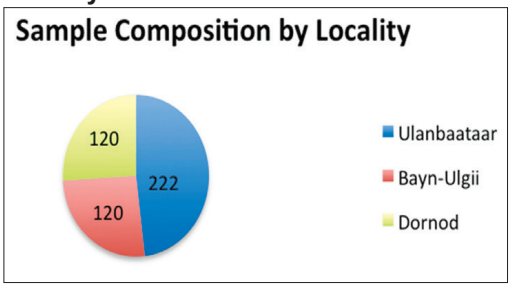
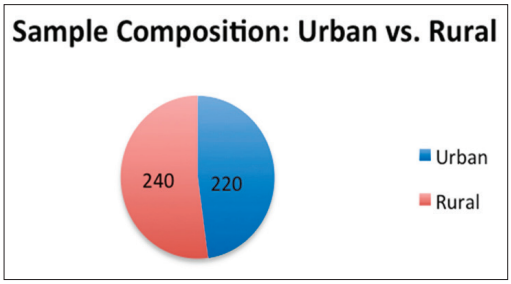


Figure 2: Sample Composition: Urban vs. Rural



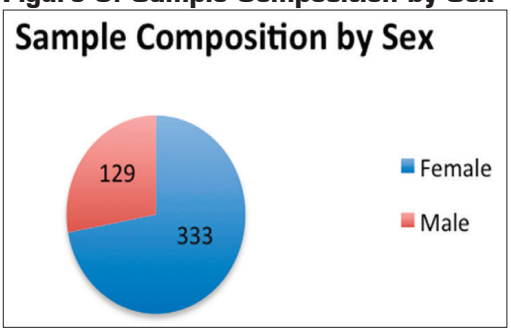
In total, the sample consists of 462 observations, of which we obtained equivalent sub–samples amongst teachers, parents, and students.About one third of the sample is coming from each of the noted subgroups(please see Table 2 below).

Table 2: Sample Composition by Surveyee Type

Survey Type	# of Observations	Percent
Parents	**151**	**32.7**
Students	**157**	**34.0**
Teachers	**154**	**33.3**
TOTAL	**462**	**100.0**

The goal of this project–component was to combine firsthand field experience, consisting of the school visitsconducted during the initial field mission, with the survey–based data in order to determine potential paths towards school uniform cost reduction. The study also ensured that the datacould be disaggregated by gender whereand if relevant. The overall sample consistedof 129 men and 333 women. In other words, of the total surveyed sample, 27.9% and 72.01% of the respondents were male and female, respectively (please see Figure 3, p. 3).

Figure 3: Sample Composition by Sex

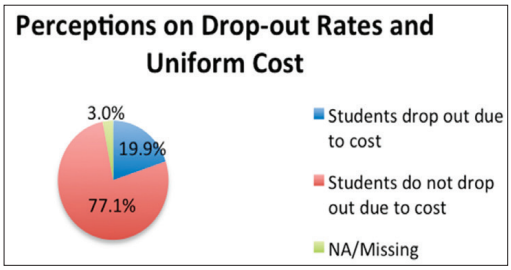


2. Cost Reduction: Relevant Findings and Recommendations

2.1. Cost Reduction via SSS Approach

Minimizing the visibility of the economic differentials amongst children of various socioeconomic backgrounds is oftenthe driving force behind the school uniform requirement. In Mongolia, however, wealthy students frequently custom tailor or purchase expensive uniforms while the poor remain reliant on the cheaper alternatives.Consequently, price and quality differ greatly as do the uniforms used by various socioeconomic groups in Mongolia.In addition and according to the survey–based data, there is a perceived adverse impact of the high uniform cost onto the poorest students: 19.9% or 92 study participants indicated that there are students who drop out of school due to the high uniform cost (please see Figure 4 below).

Figure 4: Perceptions on Drop-out Rates and Uniform Cost



Product Differentiation vs. Product Standardization and Design Simplification

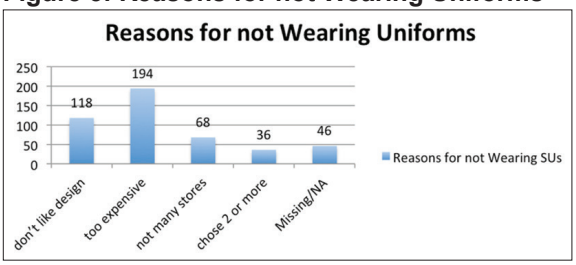
At the present time, manufacturers in Mongolia compete based on, first, product differentiation and, second, their ability to establishexclusive relationshipswith each school individually. Producers focus on differentiating themselves from other manufacturers via complexity of their designsrather than the price and quality of their products. The incentive behind suppliers' differentiation isto gain exclusive relationship with each individual school so that the producer in question becomes theschool's destination supplier.

To exemplify how excessive uniform design can be in Mongolia, the team physically examined a uniform presented by one of the interviewees during the initial fact–finding mission that, as stated by the interviewee, had small stones from Japan built into the uniform as those were believed to have calming propertiesforthe students. Other interviews, in particular those with the school uniform manufacturers,confirmed that local manufacturers lack the skillset and equipment to producehighly tailored uniform pieces. Therefore,blazersor any other more complex and elaborate designs areoutsourcedto manufacturers in China. This isnot beneficial to either the local economy in Mongolia or the end–consumers who ultimately bear much of the cost.

With design standardization and simplification, however, the dependency on outsourcing to China would likely be eliminated as would be the costs associated with the highly designed uniforms. This research supports the notion that the leadingreason for why students do not wearschool uniforms is its high cost, but other issues such as inadequate design and limited availabilityare key to any planned improvements in the

school uniform market in Mongolia (please see Figure 5 below).

Figure 5: Reasons for not Wearing Uniforms



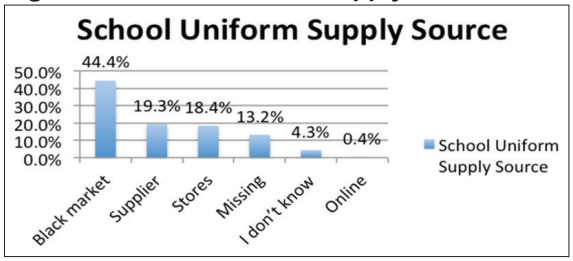
In sum, complex designs and production processes result in excessive cost that is ultimately transferred to the consumers precluding the poorest segment of the society from having access to these uniforms. Producers are focused on capturing the school uniform market by opting to differentiate themselves through detailed tailoring and complex designs. This approach, combined with investingin relationships with schools and their management rather than simplifying the design and improving the quality and price competativeness for the end consumers, is the key problem in the Mongolian school uniform market.

Fragmented Market vs. Competative Market

Resulting from the extensive product differentiation, the school uniform market is fairly segmented. In such a setting, schoolsoften relyon a particular uniform manufacturer who then has the benefit of setting the terms of the relationship with the school. As a negative consequence of this process, poor students are often unable to afford the specific uniform selected by the school and its supplier and are, instead, left to search for cheaper alternatives. Certain schools, however, are moving away from more elaborately designed school uniforms. Instead, they are opting forchaper alternatives: simpler designsare adopted by instructing students to wear white shirts paired with pants or skirts.

According to the survey–based data, 44.4% of the total sample or 205 participants suggested that students in their schools buy uniforms in the black market (see Figure 6 below). This statistic suggests that the largest segment of the surveyed participants believes students search for the cheaper alternativeto the school uniforms sold by the official stores and the school supplier. Of the total, only 19.3% said uniforms were purchased directly from the supplier while 18.4% believed students in their schools buy uniforms in stores (see Figure 6 below). Only two participants said that uniforms were sourced online, and others either didnot know the source or did not provide the supply source information.

Figure 6: School Uniform Supply Source



When surveyed students, parents, and teachers were asked whether they would like to see a nationally standardized school uniform design (i.e. one design would be used at the primary school level, one at the lower secondary school level, and

one at the upper secondary school level), an overwhelming majority expressed their preference for the standardized uniforms nationally. To be specific, 87.5% of the surveyed participants said they would endorse the standardized uniform policy across Mongolia. Only 12.3% did not support the notion of standardization (please see Figure 7, p. 6).

When segreggated by sex and out of 447 valid responses, 89.8% of the female participants and 82.4% of male participants were in favor of the standardization policy (see Table2 below). While the vast majority was in favor, somewhat stronger preference for the standardization policy is noted amongst female participants. This may be the case due to the fact that women may likely be in charge of maintaining the uniforms, so the uniform standardization and simplification would impact them most directly. For instance, eliminating items that need to be dry cleaned or ironed would lessen the maintenance concerns that are present especially among parents in non–urban areas.

Figure 7: Surveyed Participants' Support for Standardization Policy

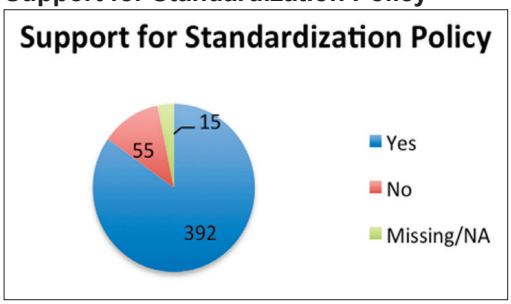


Table 3: Surveyed Sample: Standardization vs. Non–Standardization

	Female	Fem %	Male	Male %	TOTAL
In Favor	289	89.8%	103	82.4%	392
Not in Favor	33	10.2%	22	17.6%	55
TOTAL	322	100.0%	125	100.0%	

With the standardization policy in place come several key improvements in the cost structure that would arguably lead to the uniform cost–reduction.The key assumption here is that, with the introduction of the standardized product, there would be greater competition. The focus would move away from design differentiation and towards price– and quality–based competition.The competition would open up to new entrants so it would be harder to maintain the contractual exclusivity that currently exists between the schools and their suppliers. For instance, pricing for the school uniforms in England has declined by 50 percent[2]as a result of increased competition in the British market. The changed market dynamics would produce downward price pressures andultimately benefit the end consumers.

Incentive for the Suppliers

With the introduction of the school uniform standardization policy there would be increased growth potential. For those suppliers that can successfully streamline their

[2] Roberts, L. (2010). Cost of buying school uniform almost halved in last six years. Available online at: http://www.telegraph.co.uk/education/educationnews/7948903/Cost-of-buying-school-uniform-almost-halved-in-last-six-years.html

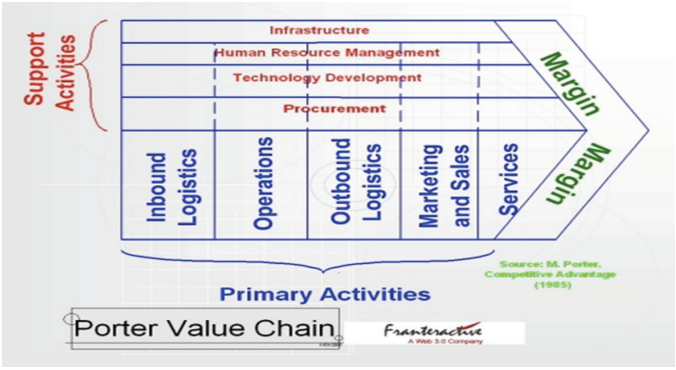
production process and compete with lower price and better quality, there would be an opportunity to increase the sales. As the study indicated earlier, currently, 44.4% of the participants turn to the black market to purchase their uniforms rather than to the offical stores or the school suppliers. This is the market share that the Mongolian suppliers would have the potential of recapturing after a standardized, simplified, and affordable uniform is introduced in the Mongolian market. In addition, standardization and simplification would allow for the existing manufacturers to replace outsourcing to China with localizing some of their production within aimags in order to reduce their distribution and marketing costs. In sum, there is a clear potential for suppliers to benefit from offering a competatively priced product that would gradually re–orient studentstowards locally manufactured products and away fromcheap and low–quality alternatives presently sold in the black market.

2.2. Mechanics of Cost Reduction via Standardization, Simplification and Satisfaction Policy

Value Chain Analysis Approach

In order to analyze the ways to alter the cost structure of school uniforms in Mongolia, I initially planned on using the Value Chain Analysis (VC Analysis)[3]. The VC Analysis can be used both at the industry or firm level to analyze each step taken by a company or an industry that adds value to the products and/or services provided by the firm or the industry in question. From the firm's or industry's perspective, this method is often used to detect the areas where the improvements could take place with the ultimate goal of expanding the firm's profit margin. Here, the goal was to look at ways to decrease the cost. The hope is that the lower cost would not only benefit suppliers but, at least in part, the end–consumers as well. Michael Porter is highly regarded in the world of business management for his VC Analysis work (see Figure 8, p. 8).[4]

Figure 8: Porter Value Chain Analysis Model[5]



Standardization – Raw Material

[3] Porter, M. (1985). Competitive Advantage: Creating and Sustaining superior Performance. The Free Press, New York.
[4] Ibid.
[5] Mishra, S. Value chain. Available online at: http://www.franteractive.net/value-chain.html

As indicated in the earlier fact–finding mission report, it is not possible to provide a thorough Value Chain Analysis in the absence of the financial and other relevant documentation from the school uniform manufacturers in Mongolia. However, given the data collected both via interviews and surveys, it is possible to point to the key areas where adjustments could take place in order to place downard price pressure on the school uniforms.

One of the first areas that should be targeted is the raw material cost, which now amounts to a significant 60% (Batzuu) or 50% (Ikhshaglaa) of the uniform sales price. At the present time, Mongolia's producers buy smaller quantities of the raw material due to highly differentiated products, which in turn leads to high cost of the raw material. If Mongolia moved towards the standardization requirement, the producers could form an alliance and negotiate the raw material purchases collectively.

In the case of South Africa, the school uniform manufacturers played a key role in the school uniform cost reduction process. The South African producers joined forces and estimated that with the introduction of the standardized uniforms the cost could be significantly lowered –by 50%[6]. Once the standardized policy is in place, the manufacturers further estimated that another 10% of the uniform cost could be eliminated by buying raw material in bulk.[7] Reiterated elsehwere, one of the key issuesimpacting the cost of all educational inputs, including school uniforms, is that they are often not purchased at wholesale prices or in bulk.[8]Furthermore, a textile producer in China[9] confirmed that the profit margin on the raw material sales is low and therefore buying in bulk is essential for getting the lowest price.Some level of collaboration amongst the school uniform manufacturers in Mongolia is already emerging as noted by several interviewees. Taking this collaboration to the next level by using this newly forming alliance as a negotiating platform for the bulk purchases of the raw material would have substantive cost benefits both for the suppliers and the end–consumers.

Standardization – Marketing Cost

In order to differentiate themselves in the market, Mongolian manufacturers travel nationally to establish relationships with individual schools. These companies incurcosts in an attempt to sign individual contracts with schools. During the fact–finding mission, manufacturers noted that there are significant travel–related costs, as well as those associated with the organization of theuniform exhibits at individual schools.

Once the supplier–school relationship is established, students are often directed to purchase uniforms from a selected supplier while the pooreither do not wear the

[6] PRNewswire (nd). Retailers unite in fight against high cost of school uniforms. Available online at: http://www2.prnewswire.co.uk/cgi/news/release?id=108366

[7] Ibid.

[8] School uniform and other costs of schooling. Fact file 01/11. Governors of Wales. Available online at: http://www.governorswales.org.uk/media/files/documents/2012-01-11/School_Uniform_-_English.pdf

[9] Direct communication took place via well-known and reputable wholesaler/retailer website alibaba.com.

uniforms or end up buying cheap knock–offs from the Chinese makers. This trend may be why at least some of the269 of the surveyed respondends or 58.2% of the total sample did not answer the question as to who the school uniform manufacturer is (see Figure 9, p. 10). It is possible that they simply did not know who the manufacturer is or that they purchased low–quality no–label uniforms in the black market. Only 13.9% of the surveyed participants said students obtain uniforms from Batzuu while 17.3% buy uniforms from Ikhshaglaa. The remaining 10.6% buy uniforms from other producers and only few acknowledged that uniforms come from Chinese manufacturers (see Figure 9, p. 10).

Thedata clearly suggests that it would be beneficial, not only for the students and their families, but also for the Mongolian suppliers to move towards the standardized uniform. Due to the cost and design issues, there is still a significant portion of students who do not wear uniforms (please see Figure 10,p. 10). If the uniforms were more competative in price and quality to what is currently available, the school uniform market would begin to increasingly shift towards the local producers.

Figure 9: School Uniform Manufacturers

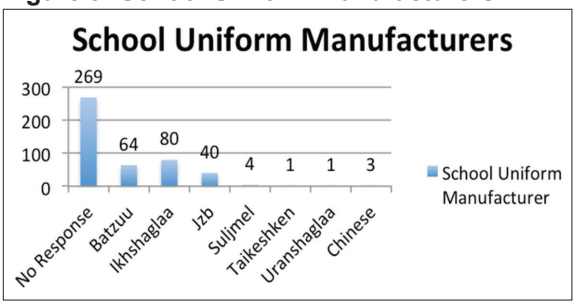
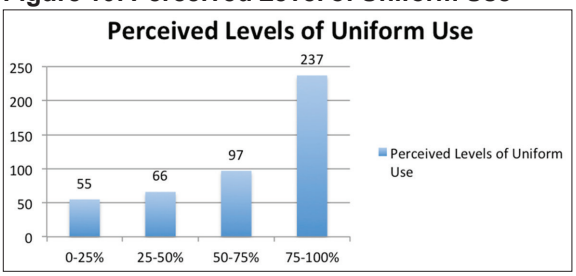


Figure 10: Perceived Level of Uniform Use



The initial fact–finding mission indicated that the current sizing and design processes may be inadequate for the Mongolian standard of living, climate, and changing body types.In a conversation with the Head of Clothing–Science and Design Department at the Mongolian University of Science and Technology, Dr. M. Bayar[10], the team learned that the body types in Mongolia have changed over the years and adequate sizing standards are non–existent at the present time. In some cases, manufacturers devise their own sizing standards. As a result, sizing is not consistent across different manufacturers, and school uniforms often do not fit properly. Additionally, they are frequently made of materials not suitable for the Mongolian climate or those that aredeemed high–maintenance especially by teachers, parents, and students living in non–urban areas. It is clear that the improvement in those domains is necessary to improve provision and

[10] Interview took place on March 28th, 2012, in Ulanbaatar.

qualityof school uniformsin Mongolia.

To implement a successful standardization policy and streamline production processes, it is of essence that the new body sizing standards for Mongolia be determined. Dr. M. Bayar noted that the textile quality standards were adopted last year, but that the country continues to lack general standards on the fitting and sizing of school uniforms. Dr. M.Bayar shared that the youth sizing standards were last updated in 1996.The old sizing standards group children into 4 categories only: one size for ages 3 to 6, one size for ages 7 to 10, one size for ages 11 to 14 and one size for ages 15 to 17. Those sizes were primarily based on weight rather than height. To address this issue and according to Dr. M. Bayar, suppliers are often forced to go to schools, measure individual children, and then manufacture based on their own measurements.

*Simplification*and *Standardization* of sizing standards and their adoption nationally would eliminate recurring costs for those suppliers who aremeasuring students individually, as well as positively impact the overall increase in satisfaction with the school uniforms. When asked about the standardization policy, Dr. M. Bayar expressed her preference for the standardization policy,adding thatit would likely improve quality, fit, and price. Dr. M. Bayar is willing to collaborate with the Mongolian government and manufacturers to improve body sizing standards and current uniform design, if and when the opportunity presents itself.

Implementation Process

Based on the research and analysis conducted during this Project, I recommend that the Clothing–Science and Design Department (CSD Deparment) work closely with the government and the manufacturers on a standard, affordable, climate–appropriate, and functional school uniform design for Mongolian students. Dr. M. Bayar noted that her school is waiting to get a body sizing machine from Japan that could be of key assistance in coming up with the standard school uniform sizes in Mongolia. In addition to developing the sizing standards, the Clothing–Science and Design Department, school uniform producers, and MECS should coordinate a design competition that would involve the top students and faculty from the CSD Department.This would be a cost–effective and collaborative approach to coming up with a standardized and modernized uniform designfor school children in Mongolia.

Similarly, I recommend that the suppliers organize and move towards purchasing raw material in bulk while also following the new sizing and design standards.As to the raw material, the CSD Department, MECS, and suppliers should work on deciding on the material content that would be appropriate for the climate and maintenance needs of students in Mongolia.Given that there are schools in rural areas where access to electricity and water may be limited, it is important that uniforms do not require ironing

or dry cleaning. For instance, schools in the USA often use washable cotton–blend for khaki pants which, over the years, have become one of the key features of the school uniforms in the USA. For instance, one of the major retailers in the US, Walmart[11], offers agood sample of school uniform offerings typical for schools in the US.

The design process should explore ways to make uniforms durable. For instance, material reinforcement in the knee area should be considered, and the waist bands for pants or skirts should be elastic and adjustable so that the same pants/skirts could be used longer. Design differentiations should be minimal in order to keep the cost down.The color variations can be expensive, so the uniforms should either be the same color or have only one item thatdiffers by school level. For instance, sweaters may be different color depending on whether the child is at theprimary, lower secondary, and upper–secondary level. The other components of the uniforms should be the same for all levels.

Other differentiations, if any, should remain limited and come only in the form of badges with the school names.Further, the school logo should be placed only on one item (i.e. sweater) to avoid high–cost associated with customization. If cheaper, the school badges could also be velcroed onto the sweaters to allow students to easily transfer from one school to another and still continue to use the same uniform. In addition, velcroing the badge would make it easier for parents to purchase or use second–hand uniforms from their friends and family whose children may be in attendance at different school.

Lastly and given the high–cost associated with the production of blazers or other complex uniforms elements, I would recommend that all high–cost items be eliminated from the school uniform design. This would eliminate the need for outsourcing to China. Similar calls for uniform simplification have also been made by the Welsh Assembly Government in their attempt to reduce the excessive school uniform cost and its negative impact on the poor families.[12]

[11] Please visit Walmart's website (http:www.walmart.com/cp/School-Uniforms/1086304?_prevTerm=school+uniform&search_redirect=true) for samples of school uniforms offered in the US.

[12] Guidance for governing bodies on school uniform and appearance policies. Department of Children, Education, Lifelong Learning and Skills. Welsh Assembly Government Circular No. 006/2008. Available online at: http://dera.ioe.ac.uk/534/1/100223schooluniformen.pdf

3. Alternative Supply Scenarios: Relevant Findings and Recommendations

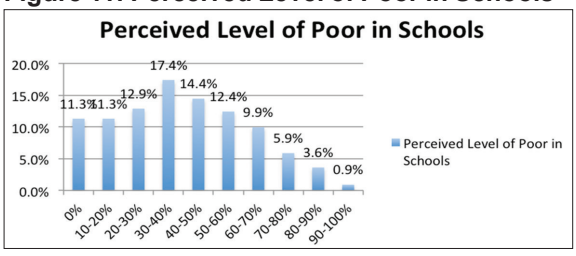
This project also aimed atproviding the total uniform cost estimates assuming that the state of Mongolia is to cover such cost for all public school students. Under the same subheading, the Project looked intoestimating costsunder the assumption that the state pays for the school uniforms of the children from the poor households only. In the current uniform market, uniform prices vary greatly and any cost estimates would similarly vary depending on the presumed quality of the selected products. Therefore, this section provides several different cost estimates and associated supply scenarios. Based on the fact–finding mission, the process of classifying who is poor and qualifies for the state assistanceoften transpires at the local level between the teachers, families, and social workers. The key variables affecting whether a student is classified as poor or not are related to whether the student is an orphan or not, the household income level, and student's number of siblings. However, when asked to provide policy documents on the approaches discussed, the school officials did not share any supporting documentation.

3.1. Cost Estimates and Key Assumptions

Assumption 1 – Poverty Estimates

While no data are available on the number of poor students nationally, my counterpart at MEA, Ms. O. Sarantsetseg, was ableto obtain data collected by the MECS in 14 aimagsand Ulanbaatraar indicating the number of students who are not able to afford school uniforms. The percentages of students unable to afford their school uniforms ranged widely, depending on their locality, from as low as 0% to as high as 39.6% (see Appendix F). However, the overall average totaled to 7.9% (see Apendix F). In Scenario Sets 9–12, I specifically use the MECS' mean as the assumed national average.

Figure 11: Perceived Level of Poor in Schools



In addition, I developed Scenario Sets 5–8, where I rely on the survey–based analysis for the school uniform price estimatesand the average[13]of the perceived povertylevelsin Mongolian schools. Thepoverty rate was calculated using the survey–based data collected in this study (please see Figure 11 below):students, parents, and teachers were asked what percentage of students in

[13] Averagefor the Perceived % of Poor Students in the Surveyed Participant's School = (50*1+50*2+57*3+77*4+64*5+55*6+44*7+26*8+16*9+4*10) /443 = 4.5. Here 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10 correspond to the values of 0%, 10-20%, 20-30%, 30-40%, 40-50%, 50-60%, 60-70%, 70-80%, 80-90%, and 90-100%, respectively. The average of 4.5 is therefore estimated to correspond to the middle value of the following ranges: 30-40% and 40-50%. The mean is presumed to fall at 40%.

their school is poor, and based on 443 valid responses, the mean value was calculated to be 40%.

Assumption 2 – Number of Students

Further, for all Scenario Sets 1 through 12, the study uses the MECS' estimate that the total number of student for the academic 2011–2012 year was 505,409. More importantly, of this total, 477,073 students attended public schools. This statistic is used as the base throughout all of the scenario calculations as the study presumes the uniforms would be supplied only to the public school students.

Assumption 3 – Uniform Price

The study also used the survey–based data on the average and mode prices based on the observations recorded for theLowest Uniform Price variable[14] and Highest Uniform Price variable[15] (please see Table 4 below). To note, the uniform price range was very wide: from 3,000 tugrik to 300,000 tugrik.

Table 4: Sample Composition by Surveyee Type

	Household Income	Lowest Uniform Price	Highest Uniform Price
# Valid Observations	**395**	**368**	**337**
Mean (in tugrik)	**411065**	**20200**	**42426**
Median (in tugrik)	**359000**	**18000**	**40000**
Mode (in tugrik)	**300000**	**15000**	**50000**
Range (in tugrik)		**3000-300000**	

Assumption 3 – Sub–Scenarios

I further break down each of the Scenario Sets into 4 sub–scenarios: 1st assumes *status quo* remains and therefore *No Cost Reduction* occurs and 2nd assumes the SSS Policy results in the equivalent price decline as assumed to occur in earlier noted case of South Africa. In the 3rd sub–scenario, I assume that no benefit incurs due to the SSS Policy and only impact of the bulk purchasing is transferred to the consumers, which could then lead to the price decline of 10%. This 10% bulk–purchases decline is also assumed to be equivalent to that of the South African case. In the 4th sub–scenario, I assume that – on the top of the 50% decline due to the SSS Policy implementation – there is a further decline in pricing by an additional 10% because of the raw material bulk purchases. It is important to note here that these assumptions were used to

[14] *Lowest Uniform Price Variable was derived from the survey participants answers to the Question 9, Question 12, and Question 11 from the Teacher Survey, Student Survey, and Parent Survey (please see Appendices A-C), respectively.*

[15] Highest Uniform Price Variable was derived from the survey participants answers to the Question 9, Question 12, and Question 11 from the Teacher Survey, Student Survey, and Parent Survey (please see Appendices *A-C*), respectively.

produce estimates that are only indicative of the possibilities when it comes to the school uniform cost reduction. In the case of Mongolia and at this time, it would be very difficult to make realistic predictions and reliably quantify the implications of the SSS Policy and its impact should this policy be implemented successfully.

Scenario Sets

While this research indisputably confirms that standardization of the school uniforms would be beneficial to the school children in Mongolia, the exact monetary implications and savings resulting from this policy – as this research has already noted – will be ultimately determined by a variety of factors relating to the policy implementation as well as the competative market forces this policy change would bring about. Therefore, the Scenario Sets presented here should serve only as a basis for further policy discssusions in Mongolia.

For the Scenario Sets 1 through 4 (please see pp. 16–17), I pressume that the state would fund school uniforms for *all students* attending state schools in Mongolia. Price for Scenario Set 1 is assumed to be the mean of the*Lowest Uniform Price*[16] variable. Comparing Scenario Set 1 and Scenario Set 2, the Set 2 provided lower estimates in terms of the funds needed to buy uniforms for all public school students because the assumed price used for thisscenariowasno longer mean but the mode of the *Lowest Uniform Price*. As noted in Table 3 (p. 14), the mode was 15,000 tugrik.[17]For Scenario Sets 3 and 4, the only significant change in terms of the assumptions is that the calculations were now based on the *Highest Uniform Price*[18] variable. For this reason, the cost estimates for purchasing the uniforms for all state students more than doubledwhen compared to the estimates from the Scenario Sets 1 and 2.

With Scenario Sets 5–8 (please see pp. 18–19), the key difference from the Scenario Sets 1–4 is in the assumption that the government would sponsor uniforms *only* for the poor students. In this set of scenarios, I presume that 40%[19] of the school population would need assistance with their uniforms. While the values are significantly lower since the assistance would be provided only to 190,829 students, they still fluctuate depending on the presumed uniform price (i.e. whether the assumed price is the mean or mode of Lowest or Highest Uniform Price variable).

[16] Lowest Uniform Price Variable was derived from the survey participants answers to the Question 9, Question 12, and Question 11 from the Teacher Survey, Student Survey, and Parent Survey (please see Appendices A-C), respectively.

[17] Mode is defined as the most frequently occuring observation for the *Lowest Uniform Price* variable.

[18] Highest Uniform Price Variable was derived from the survey participants answers to the Question 9, Question 12, and Question 11 from the Teacher Survey, Student Survey, and Parent Survey (please see Appendices A-C), respectively.

[19] Averagefor the Perceived % of Poor Students in the Surveyed Participant's School = (50*1+50*2+57*3+77*4+64 *5+55*6+44*7+26*8+16*9+4*10) /443 = 4.5. Here 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10 correspond to the values of 0%, 10-20%, 20-30%, 30-40%, 40-50%, 50-60%, 60-70%, 70-80%, 80-90%, and 90-100%, respectively. The average of 4.5 is therefore estimated to correspond to the middle value of the following ranges: 30-40% and 40-50%. The mean is presumed to fall at 40%.

In the last set of scenarios, 10–12 (please see pp. 20–21), the cost estimates for the state purchasing of the school uniforms are the lowest as the presumed number of students that would receive state assistance would total only to 37,689 or 7.9% of the total state school population. In these scenario cases, the level of those unable to afford uniforms is calculated using the average provided by the MECS study on 14 aimags (see Apendix F). The rest of the assumptions regarding the school uniform price and sub–scenarios remain the same as in other Scenario Sets.

Scenario Set 1 – Provision for Alцl, Lowest Price Variable, Mean

(Using Lowest Uniform Price Variable, all in ₮)

Scenario #	Sub-Scenario 1	Sub-Scenario 2*	Sub-Scenario 3**	Sub-Scenario 4***
Assumptions	No Cost Reduction	-50% Price Decline	-10% Bulk Purchase Decline	Combined Effect
Price (Survey Mean)	20,200	20,200	20,200	20,200
Cost Decline	0	10,100	2,020	11,110
New Price per Uniform	**20,200**	**10,100**	**18,180**	**9,090**
# of Students in SS	477,073	477,073	477,073	477,073
Total Estimated Cost	**9,636,874,600**	**4,818,437,300**	**8,673,187,140**	**4,336,593,570**

Scenario Set 2– Provision for All, Lowest Price Variable, Mode

(Using Lowest Uniform Price Variable, all in ₮)

Scenario #	Sub-Scenario 1	Sub-Scenario 2*	Sub-Scenario 3**	Sub-Scenario 4***
Assumptions	No Cost Reduction	-50% Price Decline	-10% Bulk Purchase Decline	Combined Effect
Price (Survey Mode)	15,000	15,000	15,000	15,000
Cost Decline	0	7,500	1,500	8,250
New Price per Uniform	**15,000**	**7,500**	**13,500**	**6,750**
# of Students in SS	477,073	477,073	477,073	477,073
Total Estimated Cost	**7,156,095,000**	**3,578,047,500**	**6,440,485,500**	**3,220,242,750**

* Scenario 2 assumes that the standardization effect is equivalent to that in South Africa.

** Scenario 3 assumes 10% price decline due to the bulk purchases (equivalent to that in South Africa).

*** Scenario 4 assumes combined effect of first standardization effect and then bulk purchases effect. So the decline is calculated as .5*Assumed Price + (0.5*Assumed Price)*.1

Scenario Set 3 – Provision for All, Highest Price Variable, Mean

(Using Highest Uniform Price Variable, all in ₹)

Scenario #	Sub-Scenario 1	Sub-Scenario 2*	Sub-Scenario 3**	Sub-Scenario 4***
Assumptions	No Cost Reduction	-50% Price Decline	-10% Bulk Purchase Decline	Combined Effect
Price (Survey Mean)	42,426	42,426	42,426	42,426
Cost Decline	0	21,213	4,243	23,334
New Price per Uniform	**42,426**	**21,213**	**38,183**	**19,092**
# of Students in SS	477,073	477,073	477,073	477,073
Total Estimated Cost	**20,240,299,098**	**10,120,149,549**	**18,216,269,188**	**9,108,134,594**

Scenario Set 4 – Provision for All, Highest Price Variable, Mode

(Using Highest Uniform Price Variable, all in ₹)

Scenario #	Sub-Scenario 1	Sub-Scenario 2*	Sub-Scenario 3**	Sub-Scenario 4***
Assumptions	No Cost Reduction	-50% Price Decline	-10% Bulk Purchase Decline	Combined Effect
Price (Survey Mode)	50,000	50,000	50,000	50,000
Cost Decline	0	25,000	5,000	27,500
New Price per Uniform	**50,000**	**25,000**	**45,000**	**22,500**
# of Students in SS	477,073	477,073	477,073	477,073
Total Estimated Cost	**23,853,650,000**	**11,926,825,000**	**21,468,285,000**	**10,734,142,500**

* Scenario 2 assumes that the standardization effect is equivalent to that in South Africa.

** Scenario 3 assumes 10% price decline due to the bulk purchases (equivalent to that in South Africa).

*** Scenario 4 assumes combined effect of first standardization effect and then bulk purchase effect. So the decline is calculated as .5*Assumed Price + (0.5*Assumed Price)*.1

Scenario Set 5 – Provision for Poor, Lowest Price Variable, Mean, 40% Poor****

(Using Lowest Uniform Price Variable, all in ₹)

Scenario #	Sub-Scenario 1	Sub-Scenario 2*	Sub-Scenario 3**	Sub-Scenario 4***
Assumptions	No Cost Reduction	-50% Price Decline	-10% Bulk Purchase Decline	Combined Effect
Price (Survey Mean)	20,200	20,200	20,200	20,200
Cost Decline	0	10,100	2,020	11,110
New Price per Uniform	**20,200**	**10,100**	**18,180**	**9,090**
# of Poor Students	190,829	190,829	190,829	190,829
Total Estimated Cost	**3,854,749,840**	**1,927,374,920**	**3,469,274,856**	**1,734,637,428**

Scenario Set 6 – Provision for Poor, Lowest Price Variable, Mode, 40% Poor****

(Using Lowest Uniform Price Variable, all in ₹)

Scenario #	Sub-Scenario 1	Sub-Scenario 2*	Sub-Scenario 3**	Sub-Scenario 4***
Assumptions	No Cost Reduction	-50% Price Decline	-10% Bulk Purchase Decline	Combined Effect
Price (Survey Mode)	15,000	15,000	15,000	15,000
Cost Decline	0	7,500	1,500	8,250
New Price per Uniform	**15,000**	**7,500**	**13,500**	**6,750**
# of Poor Students	190,829	190,829	190,829	190,829
Total Estimated Cost	**2,862,438,000**	**1,431,219,000**	**2,576,194,200**	**1,288,097,100**

* Scenario 2 assumes that the standardization effect is equivalent to that in South Africa.

** Scenario 3 assumes 10% price decline due to the bulk purchases (equivalent to that in South Africa).

*** Scenario 4 assumes combined effect of first standardization effect and then bulk purchase effect. So the decline is calculated as .5*Assumed Price + (0.5*Assumed Price)*.1

**** The estimateof poor students is based on this study's survey-data analysis: 40%.

Scenario Set 7 – Provision for Poor, Highest Price Variable, Mean, 40% Poor****

(Using Highest Uniform Price Variable, all in ₹)

Scenario #	Sub-Scenario 1	Sub-Scenario 2*	Sub-Scenario 3**	Sub-Scenario 4****
Assumptions	No Cost Reduction	-50% Price Decline	-10% Bulk Purchase Decline	Combined Effect
Price (Survey Mean)	42,426	42,426	42,426	42,426
Cost Decline	0	21,213	4,243	23,334
New Price per Uniform	**42,426**	**21,213**	**38,183**	**19,092**
# of Students	190,829	190,829	190,829	190,829
Total Estimated Cost	**8,096,119,639**	**4,048,059,820**	**7,286,507,675**	**3,643,253,838**

Scenario Set 8 - Provision for Poor, Highest Price Variable, Mode, 40% Poor ****

(Using Highest Uniform Price Variable, all in ₹)

Scenario #	Sub-Scenario 1	Sub-Scenario 2*	Sub-Scenario 3**	Sub-Scenario 4****
Assumptions	No Cost Reduction	-50% Price Decline	-10% Bulk Purchase Decline	Combined Effect
Price (Survey Mode)	50,000	50,000	50,000	50,000
Cost Decline	0	25,000	5,000	27,500
New Price per Uniform	**50,000**	**25,000**	**45,000**	**22,500**
# of Students	190,829	190,829	190,829	190,829
Total Estimated Cost	**9,541,460,000**	**4,770,730,000**	**8,587,314,000**	**4,293,657,000**

* Scenario 2 assumes that the standardization effect is equivalent to that in South Africa.

** Scenario 3 assumes 10% price decline due to the bulk purchases (equivalent to that in South Africa).

*** Scenario 4 assumes combined effect of first standardization effect and then bulk purchase effect. So the decline is calculated as .5*Assumed Price + (0.5*Assumed Price)*.1

**** The estimateof poor students is based on this study's survey-data analysis: 40%.

Scenario Set 9 - Provision for Poor, Lowest Price Variable, Mean, 7.9% Poor**

(Using Lowest Uniform Price Variable, all in ₹)

Scenario #	Sub-Scenario 1	Sub-Scenario 2*	Sub-Scenario 3**	Sub-Scenario 4****
Assumptions	No Cost Reduction	-50% Price Decline	-10% Bulk Purchase Decline	Combined Effect
Price (Survey Mean)	20,200	20,200	20,200	20,200
Cost Decline	0	10,100	2,020	11,110
New Price per Uniform	**20,200**	**10,100**	**18,180**	**9,090**
# of Poor Students	37,689	37,689	37,689	37,689
Total Estimated Cost	**761,313,093**	**380,656,547**	**685,181,784**	**342,590,892**

Scenario Set 10 - Provision for Poor, Lowest Price Variable, Mode, 7.9% Poor**

(Using Lowest Uniform Price Variable, all in ₹)

Scenario #	Sub-Scenario 1	Sub-Scenario 2*	Sub-Scenario 3**	Sub-Scenario 4****
Assumptions	No Cost Reduction	-50% Price Decline	-10% Bulk Purchase Decline	Combined Effect
Price (Survey Mode)	15,000	15,000	15,000	15,000
Cost Decline	0	7,500	1,500	8,250
New Price per Uniform	**15,000**	**7,500**	**13,500**	**6,750**
# of Poor Students	37,689	37,689	37,689	37,689
Total Estimated Cost	**565,331,505**	**282,665,753**	**508,798,355**	**254,399,177**

* Scenario 2 assumes that the standardization effect equivalent to that in South Africa.

** Scenario 3 assumes 10% price decline due to the bulk purchases.

*** Scenario 4 assumes combined effect of first standardization effect and then bulk purchase effect. So the decline is calculated as .5*Assumed Price + (0.5*Assumed Price)*.1

**** The estimate of poor students is based on the MECS survey-data analysis that resulted in the estimatedaverage of 7.9% students that cannot afford uniforms.

Scenario Set 11 - Provision for Poor, Highest Price Variable, Mean, 7.9% Poor**

(Using Highest Uniform Price Variable, all in ₹)

Scenario #	Sub-Scenario 1	Sub-Scenario 2*	Sub-Scenario 3**	Sub-Scenario 4****
Assumptions	No Cost Reduction	-50% Price Decline	-10% Bulk Purchase Decline	Combined Effect
Price (Survey Mean)	42,426	42,426	42,426	42,426
Cost Decline	0	21,213	4,243	23,334

New Price per Uniform	**42,426**	**21,213**	**38,183**	**19,092**
# of Students	37,689	37,689	37,689	37,689
Total Estimated Cost	**1,598,983,629**	**799,491,814**	**1,439,085,266**	**719,542,633**

Scenario Set 12 - Provision for Poor, Highest Price Variable, Mode, 7.9% Poor****

(Using Highest Uniform Price Variable, all in ₹)

Scenario #	Sub-Scenario 1	Sub-Scenario 2*	Sub-Scenario 3**	Sub-Scenario 4****
Assumptions	No Cost Reduction	-50% Price Decline	-10% Bulk Purchase Decline	Combined Effect
Price (Survey Mode)	50,000	50,000	50,000	50,000
Cost Decline	0	25,000	5,000	27,500
New Price per Uniform	**50,000**	**25,000**	**45,000**	**22,500**
# of Students	37,689	37,689	37,689	37,689
Total Estimated Cost	**1,884,438,350**	**942,219,175**	**1,695,994,515**	**847,997,258**

* Scenario 2 assumes that the standardization effect equivalent to that in South Africa.

** Scenario 3 assumes 10% price decline due to the bulk purchases.

*** Scenario 4 assumes combined effect of first standardization effect and then bulk purchase effect. So the decline is calculated as .5*Assumed Price + (0.5*Assumed Price)*.1

**** The estimate of poor students is based on the MECS survey-data analysis that resulted in the estimate average of 7.9% students that cannot afford uniforms.

Conclusion

The initial fact–finding mission brought to light several issues that affect the school uniform practices in Mongolia: poor quality, inadequate design, and outdated sizing standards. The initial focus groups and interviews suggested that the uniform standardization policy may be the road Mongolia should travel to reduce the school uniform cost, and the survey–based data reiterated this notion. With simpler and standardized uniforms, a greater competition would emerge and produce downard price pressures. A standard and simple uniform that requires no specialized equipment would expandthe market for those local suppliers that are capable of producing school uniforms in–house.Adopting such a Standardization, Simplification, and Satisfaction School Uniform Policy at a national level would move schools away from controlling the supply process and instead enable parents and students to make their choices based on the school uniforms' price and quality.

APPENDIX A

TEACHER SURVEY ON MONGOLIAN SCHOOL UNIFORMS

Please read questions carefully and answer them honestly. Your answers will be analyzed on an anonymous basis with the purpose of understanding, as well as improving, the school uniform affordability in Mongolia. Thank you very much for your participation.

A. DEMOGRAPHIC INFORMATION

1. Where do you live?

_____ (Ulaanbaatar)

_____ (Aimag/Province)

_____ (Soum/District)

2. What is your sex: ___ Male ___ Female

3. Please indicate the average monthly income of your household?

_____

4. How many children do you have?

___ 0
___ 1
___ 2
___ 3+

B. SCHOOL INFORMATION

5. What is the name of your school: _____

6. Please indicate if your school is in urban or rural area:

___ urban (UB or aimag)
___ rural (soum)

7. Please indicate the number of students in your school:

__0–500
__500–1000
__1000–1500
__1500–2000
__2000–2500
__2500 or more

8. In your opinion, what percentage of students is poor in your school?

___ 10% or less
___ 10–20%
___ 20–30%
___ 30–40%
___ 40–50%
___ 50–60%
___ 60–70%
___ 70–80%
___ 80–90%
___ 90–100%

C. SCHOOL UNIFORMS

9. What is the price range for your uniform?

Lowest Price is _____

Highest Price is _____

10. Do students in your school wear uniforms?

___ 75–100%
___ 50–75%
___ 25–50%
___ 0–25%

11. If there are students that do not wear uniforms, why do they not wear them?

___ they do not like current uniform design

___ too expensive

___ not many stores in my area sell uniforms

12. Are there any students who dropped out from your school due to the high cost of uniforms?

___Yes

___ No

13. Does your school supply uniforms for students who cannot afford uniforms?

___Yes

___No

14. Are you satisfied with the quality and design of the uniforms?

___ Very satisfied

___ Somewhat satisfied

___ Neither satisfied nor dissatisfied

___ Somewhat dissatisfied

___ Very dissatisfied

15. If you are dissatisfied to any degree with the design or quality, please check **ALL** that applies (otherwise proceed to the next question)?

___ our design is too complicated and there are too many pieces to buy

___ I would change material to cotton or something more comfortable

___ I would make sure uniforms fit better

___ I would make a standard/simpler design that is used by all in Mongolia with small differentiations between elementary, secondary, and high–school

16. What is the name of the company(ies) that supply/manufacture(s) your school's uniforms?

1. _____
2. _____
3. _____
4. _____

17. Where do students in your school buy uniforms?

___ Black Market

___ Stores

___ Online
___ Supplier delivers uniforms to school
___ I do not know

18. Are you satisfied with how uniforms are currently supplied?

___ Very satisfied
___ Somewhat satisfied
___ Neither satisfied nor dissatisfied
___ Somewhat dissatisfied
___ Very dissatisfied

19. If you are dissatisfied to any degree with the supply process, please check **ALL** that applies (otherwise proceed to the next question)?

___ Uniforms are delivered to school late in the school year
___ I had no role in deciding on the uniform design/supplier
___ Quality of delivered uniforms is lower than of the design we initially chose

20. Would you support standardized uniforms for all public schools in Mongolia (i.e. all elementary school students would wear one design, all middle schools one design, and all high–schools one design)?

___ Yes
___ No

21. Would you support the idea that the government pays for uniforms?

___ Yes, for all students
___ Yes, but only for the poorest students
___ No, everyone should pay for their uniform

APPENDIX B

STUDENT SURVEY ON MONGOLIAN SCHOOL UNIFORMS

Please read questions carefully and answer them honestly. Your answers will be analyzed on an anonymous basis with the purpose of understanding, as well as improving, the school uniform affordability in Mongolia. Thank you very much for your participation.

A. DEMOGRAPHIC INFORMATION

1. Where do you live?

_____ (Ulaanbaatar)
_____ (Aimag/Province)
_____ (Soum/District)

2. What is your sex: ___ Male ___ Female

3. Please indicate the average monthly income of your household?

_____

4. What grade are you in: _____

5. Do you have parents?

__Yes, both of my parents are living
__Yes, but only Mother
__Yes, but only Father
__No, I do not have parents

6. Are your parents employed?

__Yes, both
__Father only
__Mother only
__Neither
__Retired
__Disabled

7. How many siblings do you have?

__0
__1
__2
__3+

B. SCHOOL INFORMATION

8. What is the name of your school: _____

9. Please indicate if your school is in urban or rural area:

___ urban (UB or aimag)

___ rural (soum)

10. Please indicate the number of students in your school:

__0–500

__500–1000

__1000–1500

__1500–2000

__2000–2500

__2500 or more

11. In your opinion, what percentage of students is poor in your school?

___ 10% or less

___ 10–20%

___ 20–30%

___ 30–40%

___ 40–50%

___ 50–60%

___ 60–70%

___ 70–80%

___ 80–90%

___ 90–100%

C. SCHOOL UNIFORMS

12. What is the price range for your uniform?
Lowest Price is _____
Highest Price is _____

13. Do students in your school wear uniforms?

___ 75–100%

___ 50–75%

___ 25–50%

___ 0–25%

14. If there are students that do not wear uniforms, why do they not wear them?

___ they do not like current uniform design

___ too expensive
___ not many stores in my area sell uniforms

15. Are there any students who dropped out from your school due to the high cost of uniforms?
___Yes
___ No

16. Does your school supply uniforms for students who cannot afford uniforms?
___Yes
___No

17. Are you satisfied with the quality and design of the uniforms?
___ Very satisfied
___ Somewhat satisfied
___ Neither satisfied nor dissatisfied
___ Somewhat dissatisfied
___ Very dissatisfied

18. If you are dissatisfied to any degree with the design or quality, please check ALL that applies (otherwise proceed to the next question)?
___ design is too complicated and there are too many pieces to buy
___ I would change material to cotton or something more comfortable
___ I would make sure uniforms fit better
___ I would make a standard/simpler design that is used by all in Mongolia with small differentiations between elementary, secondary, and high-school

19. What is the name of the company(ies) that supply/manufacture(s) your school's uniforms?
1. _____
2. _____
3. _____
4. _____

20. Where do students in your school buy uniforms?
___ Black Market
___ Stores
___ Online
___ Supplier delivers uniforms to school
___ I do not know

21. Are you satisfied with how uniforms are currently supplied?
___ Very satisfied
___ Somewhat satisfied
___ Neither satisfied nor dissatisfied
___ Somewhat dissatisfied
___ Very dissatisfied

22. If you are dissatisfied to any degree with the supply process, please check **ALL** that applies (otherwise proceed to the next question)?

___ Uniforms are delivered to school late in the school year
___ I had no role in deciding on the uniform design/supplier
___ Quality of delivered uniforms is lower than of the design we initially chose

23. Would you support standardized uniforms for all public schools in Mongolia (i.e. all elementary school students would wear one design, all middle schools one design, and all high–schools one design)?

___ Yes
___ No

24. Would you support the idea that the government pays for uniforms?

___ Yes, for all students
___ Yes, but only for the poorest students
___ No, everyone should pay for their uniform

APPENDIX C

PARENT SURVEY ON MONGOLIAN SCHOOL UNIFORMS

Please read questions carefully and answer them honestly. Your answers will be analyzed on an anonymous basis with the purpose of understanding, as well as improving, the school uniform affordability in Mongolia. Thank you very much for your participation.

A. DEMOGRAPHIC INFORMATION

1. Where do you live?

_____ (Ulaanbaatar)
_____ (Aimag/Province)
_____ (Soum/District)

2. What is your sex: ___ Male ___ Female

3. Please indicate the average monthly income of your household?

_____

4. What grade is your child in: _____

5. Are you employed?

__Yes
__No
__Retired
__Disabled

6. How many children do you have?

__1
__2
__3+

B. SCHOOL INFORMATION

7. What is the name of your child/children's school:

_____

8. Please indicate if your school is in urban or rural area:

___ urban (UB or aimag)
___ rural (soum)

9. Please indicate the number of students in your school:

__0–500
__500–1000
__1000–1500
__1500–2000
__2000–2500
__2500 or more

10. In your opinion, what percentage of students is poor in your school?

___ 10% or less
___ 10–20%
___ 20–30%
___ 30–40%
___ 40–50%
___ 50–60%
___ 60–70%
___ 70–80%
___ 80–90%
___ 90–100%

C. SCHOOL UNIFORMS

11. What is the price range for your child/children's uniform?

Lowest Price is _____
Highest Price is _____

12. How many students in your child/children's school wear uniforms?

___ 75–100%
___ 50–75%
___ 25–50%
___ 0–25%

13. If there are students that do not wear uniforms, why do they not wear them?

___ they do not like current uniform design

___ too expensive

___ not many stores in my area sell uniforms

14. Are there any students who dropped out from your school due to the high cost of uniforms?

___Yes

___ No

15. Does your school supply uniforms for students who cannot afford uniforms?

___Yes

___No

16. Are you satisfied with the quality and design of the uniforms?

___ Very satisfied

___ Somewhat satisfied

___ Neither satisfied nor dissatisfied

___ Somewhat dissatisfied

___ Very dissatisfied

17. If you are dissatisfied to any degree with the design or quality, please check **ALL** that applies (otherwise proceed to the next question)?

___ design is too complicated and there are too many pieces to buy

___ I would change material to cotton or something more comfortable

___ I would make sure uniforms fit better

___ I would make a standard/simpler design that is used by all in Mongolia with small differentiations between elementary, secondary, and high–school

18. What is the name of the company(ies) that supply/manufacture(s) your school's uniforms?

1._____

2. _____

3. _____

4. _____

19. Where do students in your school buy uniforms?

___ Black Market

___ Stores

___ Online

___ Supplier delivers uniforms to school

___ I do not know

20. Are you satisfied with how uniforms are currently supplied?

___ Very satisfied

___ Somewhat satisfied

___ Neither satisfied nor dissatisfied

___ Somewhat dissatisfied

___ Very dissatisfied

21. If you are dissatisfied to any degree with the supply process, please check **ALL** that applies (otherwise proceed to the next question)?

___ Uniforms are delivered to school late in the school year

___ I had no role in deciding on the uniform design/supplier

___ Quality of delivered uniforms is lower than of the design we initially chose

22. Would you support standardized uniforms for all public schools in Mongolia (i.e. all elementary schools would wear one design, all middle schools one design, and all high–schools one design)?

___ Yes

___ No

23. Would you support the idea that the government pays for uniforms?

___ Yes, for all students

___ Yes, but only for the poorest students

___ No, everyone should pay for their uniform

APPENDIX D

SUPPLIER INTERVIEW GUIDE

1. Do you produce uniforms exclusively or other products as well?

2. Could you please tell me what all of the cost components are of your uniform production process? For instance, do you have a design cost, raw material cost, production cost, marketing cost, distribution cost? Do you have any charts/documents/financials you could share with me on this?

3. What percentage of your cost is raw material?

4. Where do you get your raw material? At what cost?

5. If your volume of sales increased, do you think your supplier would be willing to give you better material at a lower cost?

6. What percentage is marketing? What is included in your marketing cost?

7. What is your labor cost? How much is it as a percentage of the total cost?

8. How much is your distribution cost as a percentage of the total cost?

9. How many schools do you supply with uniforms?

10. If your volume significantly increased, would you be able to lower the cost?

11. Is the design different for each school?

12. What is the price range of the uniforms you make?

13. How many pieces does each uniform have?

14. Do you think the design could be simplified to achieve lower cost?

15. Could you tell me about your design process? How long does it take to design a uniform? Do you change designs frequently? What is your design cost as a percentage of the total cost?

16. Would your raw material supplier be open to lowering the price if your volume was significantly greater?

17. If possible, would you be open to collaborating with other manufacturers and possibly government of Mongolia to negotiate a lower price of raw material from your supplier or from another supplier in order to lower the current price of uniforms?

18. How do you market/sell your uniforms? Do you sell to stores or to parents or schools directly?

19. How do you usually obtain a contract to sell to a certain school?

20. Would you be open to a policy of standardizing uniforms so that you can sell to any school in Mongolia not only schools you are currently working with?

21. Would this help lower your marketing costs?

22. Do you think this would help you with selling to other schools as well?

23. Do you think this standardization would help your business by making your market bigger?

24. Do you sell your uniforms online? Or to stores?

25. How many store distributors do you have at this time?

26. If you had the power to improve something what and how would you change?

27. How many poor kids are there who cannot afford uniforms?

APPENDIX E

INTERVIEW AND FOCUS GROUP GUIDE FOR STUDENTS, PARENTS, TEACHERS AND OTHER SCHOOL STAKEHOLDERS

1. I would like to learn a bit more about your general view on the state of the Mongolian uniforms?
2. In your view, what are the top three key problems with uniforms?
3. At the present time, what is the percentage of the poor children in your school, how would you define that group?
4. Do you/does your school provide free uniforms for these students?
5. How are they selected?
6. Do you have any policy in writing you could share on how you target/help the poor in terms of uniforms?
7. Has the cost of uniforms affected enrollment or attendance/drop out rates of girls and boys?
8. Are there any historical data to compare: pre versus post 2008 economic crisis in terms of attendance/enrollment/by gender?
9. Or any data on the trends as far as uniforms are concerned?
10. Are there less kids who are wearing them now than prior to the economic crisis?
11. What is the typical cost of a uniform?
12. What is the average household income of your students?
13. How do you decide on design of the uniform?
14. Who supplies uniforms for your school?
15. Where do parents buy uniforms?
16. Do uniforms differ in terms of design depending on which schools are attended?
17. Is there difference within your school between grades?

18. If there could be a standard design for a uniform in Mongolia's public schools, would you be open to it?
19. What percentage of students do you think does not wear uniforms at the present time?
20. Do you think the cost is the primary reason and if so, do you think that students in general are aware of the socioeconomic background of a student who shows up without uniform to school?
21. Do you think there are any adverse effects on the students who cannot afford uniform in terms of their performance or interest in school?
22. Are uniforms obligatory?
23. What happens then if a student cannot afford the uniform?
24. If you could, what would you change about uniforms in Mongolia's schools?

APPENDIX F

MECS STATISTICS ON STUDENTS UNABLE TO AFFORD UNIFORMS

№		Aimag/ district	Classes	Total number of students	Number of students who are not able to buy new uniforms	% of those not able to afford
	Number of schools included in the study					
1	75	Bayangol	primary	15323	528	3.4%
			secondary	9638	379	3.9%
			upper secondary	5353	227	4.2%
			total	30314	1134	3.7%
2	37	Bayanzurkh	primary	13780	845	6.1%
			secondary	8110	557	6.9%
			upper secondary	3464	214	6.2%
			total	25354	1616	6.4%
3	54	Sukhbaatar	primary	14261	363	2.5%
			secondary	9402	176	1.9%
			upper secondary	5961	82	1.4%
			total	29624	621	2.1%
4		Songinokhairkhan	primary	18326	910	5.0%
			secondary	10341	444	4.3%
			upper secondary	4217	43	1.0%
			total	32884	1397	4.2%
5		Chingeltei	primary	9557	154	1.6%
			secondary	6286	210	3.3%
			upper secondary	5183	113	2.2%
			total	21026	477	2.3%
6		Khan-Uul	primary	8451	703	8.3%
			secondary	4802	567	11.8%
			upper secondary	3170	337	10.6%
			total	16423	1607	9.8%
7		Nalaikh	primary	2069	92	4.4%
			secondary	1151	119	10.3%
			upper secondary	452	64	14.2%
			Total	3672	275	7.5%
8		Baganuur	primary	2676	147	5.5%
			secondary	1857	124	6.7%
			upper secondary	907	7	0.8%

			Total	5440	278	5.1%
9		Bagakhangai	primary	293	0	0.0%
			secondary	169	0	0.0%
			upper secondary	72	0	0.0%
			Total	534	0	0.0%
		Ulaanbaatar	primary	84736	3742	4.4%
			secondary	51756	2576	5.0%
			upper secondary	28779	1087	3.8%
			Total	165271	7405	4.5%
10		Dornogovi	primary	5967	338	5.7%
			secondary	3690	159	4.3%
			upper secondary	1283	22	1.7%
			total	10940	519	4.7%
11		Umnugovi	primary	5156	381	7.4%
			secondary	3553	290	8.2%
			upper secondary	1026	46	4.5%
			Total	9735	717	7.4%
12		Sukhbaatar	primary	5472	374	6.8%
			secondary	3564	216	6.1%
			upper secondary	1146	35	3.1%
			total	10182	625	6.1%
13		Khovd	primary	9955	1901	19.1%
			secondary	6874	1688	24.6%
			upper secondary	2763	666	24.1%
			total	19592	4255	21.7%
14	19	Khuvsgul	primary	6777	2242	33.1%
			secondary	3233	1141	35.3%
			upper secondary	2898	1148	39.6%
			total	12908	4531	35.1%
		Aimags' mean	primary	33327	5236	15.7%
			secondary	20914	3494	16.7%
			upper secondary	9116	1917	21.0%
				63357	10647	16.8%
		TOTAL PRIMARY		118063	8978	7.6%
		TOTAL SECONDARY		72670	6070	8.4%
		TOTAL UPPER		37895	3004	7.9%
		TOTAL ALL		**228628**	**18052**	**7.9%**

APPENDIX G

MECS STUDY ON STATE VS. NON–STATE SCHOOLS

	State		Non state		Total	
	Schools	Students	Schools	Students	Schools	Students
Dornogovi aimag	19	10942	1	120	20	11062
Umnugovi aimag	18	10429			18	10429
Sukhbaatar aimag	15	10648			15	10648
Khovd aimag	23	20409			23	20409
Khuvsgul aimag	33	26252			33	26252
	108	78680	1	120	109	78800
Bayangol district	17	26829	27	3809	44	30638
Bayanzurk district	19	34712	19	5242	38	39954
Sukhbaatar district	25	22212	29	7144	54	29356
Songinokhairkhan district	13	33798	9	1307	22	35105
Chingeltei district	13	20878	8	644	21	21522
Khan-Uul district	15	15519	5	660	20	16179
Nalaikh district	4	5371			4	5371
Baganuur district	4	5668			4	5668
Bagakhangai district	1	558			1	558
	111	165545	97	18806	208	184351
TOTAL	219	244225	98	18926	317	263151